

**TOWN OF ARLINGTON MASSACHUSETTS  
INVITATION TO BID # 14-31  
TRAFFIC SIGNAL EQUIPMENT UPGRADE PROJECT**

Sealed bids are invited and will be received by the Town Manager, Town of Arlington, Massachusetts, until **11:00 A.M., Thursday, August 28, 2014** at the Office of the Purchasing Agent, Town Hall, Arlington, Massachusetts 02476, at which time and place they will be publicly opened and read.

A BID DEPOSIT IN THE FORM OF CASH, CERTIFIED CHECK, OR TREASURER'S CHECK, shall accompany every bid. The amount of such bid deposit shall be FIVE PERCENT (5%) of the value of the bid.

Specifications and proposal forms will be available at the Office of the Purchasing Agent, Town Hall, Arlington, Massachusetts. All bids must be in sealed envelopes plainly marked: **BID ON: TRAFFIC SIGNAL EQUIPMENT UPGRADE PROJECT, BID # 14-31, THURSDAY, AUGUST 28, 2014 AT 11:00A.M.**

The conditions of employment as set forth in Sections 26 to 27D and 27F of Chapter 149 of the General Laws, as amended, shall prevail in the execution of the work under this contract.

Attention is called to the fact that minimum wage rates and health and welfare and pension fund contributions are established for this contract and are a part of the specifications.

Work under this contract shall be governed by M.G.L.Ch.30, Sec.39M.

Attestation Forms pursuant to M.G.L. Ch. 62C, Sec. 49A and M.G.L. Ch. 701 of the Acts of 1983 are enclosed and shall be submitted with bids.

Proposals are for Traffic Signal Equipment Upgrades at various locations in the Town of Arlington, Massachusetts.

**It is the intention of the Owner to award the Contract to the lowest qualified responsive bidder. The bidder must submit a bid on all bid items in the Contract.**

All proposals to include prices in both writing and in figures, and must be signed by the bidder with his business address.

An increase or decrease in the quantity of work shall not be regarded as a sufficient ground for an increase in the unit prices.

To receive consideration, bids must be in the hands of the Purchasing Agent or his authorized representative not later than the day and hour above mentioned. For further information relative to this bid, please confer with Domenic R. Lanzillotti, Director, Purchasing Department, Town Hall, Arlington, Massachusetts, 02476.

OSHA Construction Training Required: As of July 1, 2006, under M.G.L. – Chapter 30, Section 39s, any person, submitting a bid for, or signing a contract to work on, the construction, reconstruction, alteration, remodeling or repair of any public work by the Commonwealth of Massachusetts/Town of Arlington, and estimated by the awarding Authority to cost more than \$10,000, shall certify on the Bid or Contract, under penalty of perjury, that all employees to be employed at the work will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration

The Town Manager reserves the right to cancel any invitation for bids, to reject in whole or in part any and all bids, when it is deemed in the best interest of the Town of Arlington to do so.

TOWN OF ARLINGTON

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Adam Chapdelaine  
Town Manager

Date: August 13, 2014

## **I INSTRUCTION TO BIDDERS**

### **1. Receipt of Bids**

The Town may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informality in or reject any bids. Any bid may be withdrawn before the time for the opening of bids. Any bid received after the time and date specified shall not be considered. No bidder may withdraw his/her bid for a period of 30 days, excluding Saturdays, Sundays, and legal holidays after actual date of the opening thereof.

### **2. Preparation of Bid**

Each bid shall be submitted on the forms attached to these documents. The bid forms may be removed and submitted separately from the other documents. All blank spaces for bid prices must be filled in with the unit price for the item or the lump sum for which the proposal is made. Bidders must bid on each item. All entries in the entire proposal must be made clearly, and prices written in both words and figures in the spaces provided.

Each bid must be in a sealed envelope addressed to the Office of the Purchasing Agent, 730 Massachusetts Avenue, Arlington, Massachusetts, 02476; and bearing on the outside the name of the bidder, his/her address, the name of the project for which the bid is submitted, and the notation ' **BID ON: BID # 14-31 TRAFFIC SIGNAL EQUIPMENT UPGRADE PROJECT.**

### **3. Bid Security**

Every bid submitted by contractors shall be accompanied by a bid deposit in the form of cash, certified check, treasurer's or cashier's check, or a bid bond issued by a responsible bank or trust company and made payable to the Town of Arlington. The amount of the bid deposit shall be 5% of the amount of the bid. All security except those of the three lowest responsible and eligible bidders will be returned within ten days, Saturdays, Sundays, and legal holidays excluded, after opening of the bid. All bid securities will be returned on the execution of the contract or if no award is made within 30 days, excluding Saturdays, Sundays, and legal holidays, after the actual date of the opening thereof, unless forfeited under the conditions herein stipulated.

In case a party to whom a contract is awarded shall fail or neglect to execute the contract and furnish the satisfactory bond in the time specified, the Town may determine the bidder has abandoned the contract and thereupon the proposal and acceptance shall be null and void, and the bid security accompanying the proposal shall be forfeited to the Town as liquidation damages for such failure or neglect and indemnify the Town for any loss which may be sustained by failure of the bidder to execute the contract and furnish the bonds as aforesaid, provided that, in case of death, disability, or other unforeseen circumstances affecting the bidder, such bid security may be returned to him/her.

After execution of the contract and acceptance of the bonds by the Town, the bid security accompanying the proposal of the successful bidder will be returned.

#### 4. Time of Completion

The bidder must agree to commence work within ten (10) business days from the date of signing the contract and to fully complete the project within the time specified within the Special Provisions section of this document.

#### 5. Performance and Labor Material Bonds

A bond in the sum of 50% of the total amount of the Contract by the successful bidder and an additional bond in equal amount covering the payment for all labor and materials used in the work will be required. A surety company authorized to do business in Massachusetts and satisfactory to the Town of Arlington must provide these bonds. These bonds will be required at the execution of the contract. Attorneys-in-fact who sign contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

#### 6. Laws and Regulations

The bidder's attention is directed to the fact that all applicable State laws, Town of Arlington Bylaws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they shall be deemed to be included in the contract the same as though herein written out in full.

#### 7. Withdrawal of Bids

Upon proper written request and identification, Bids may be withdrawn only as follows:

- a. At any time before the designated time for the opening of Bids.
- b. Death or serious injury of a principal.
- c. With the written approval of the Town of Arlington Office of the Purchasing Director.
- d. At any time after the expiration of the period during which withdrawal is prohibited provided the bid has not been accepted by the Town.

#### 8. Execution of Contract

The party to whom the contract is awarded shall be required to execute the contract and furnish the bonds duly executed with a satisfactory surety company within five days, excluding Saturdays, Sundays, and legal holidays, of the date of the mailing of the notice to the bidder according to the address given by him/her, that the contract is ready for execution.

#### 9. Obligation of Bidder

At the time of the opening of bids, each bidder shall be presumed to have read and to be thoroughly familiar with the contract documents. The failure or omission of any bidder to receive or examine any form, instrument, or documents shall in no way relieve any bidder from the obligation in respect to his bid.

#### 10. Omissions, Discrepancies, Interpretations and Addenda

Should a bidder find discrepancies in, or omissions from, the drawings or contract documents, or should he/she have questions as to the interpretation of the plans or contract documents he/she shall submit such in writing to the Director of Purchasing at least five (5) days before the date herein set for the opening of bids. An interpretation will be mailed by certified mail to prospective bidders at the addresses given by them on or about two (2) days before the opening of bids. Signed copies of all addenda shall be included with the bid; omission of the signed addendum shall be cause for rejection of the bid.

#### 11. Record of Address

Prospective bidders shall at the time plans and specifications are secured place on file with the Director of Purchasing their address, and are required to make any changes necessary to insure that the record is accurate, complete, and up to date.

#### 12. Massachusetts Sales and Use Tax

Materials purchased for permanent installation in the work will be exempt from the Massachusetts Sales and Use tax. Each bidder shall consider this exemption in calculating his/her bid for the work.

#### 13. State Tax Affidavit

Prospective bidders are required to certify that all state tax returns have been filed and all state taxes have been paid in order to be eligible to enter into a contract with the Town on this project. The included form is to be used for this purpose and is to be completed and returned as part of the bid and proposal.

#### 14. Minimum Wage Rates

Prevailing rates for wages for work performed under this Contract will be as predetermined by the Commissioner of Labor and Industries of the Commonwealth of Massachusetts in accordance with the provisions of Sections 26 to 27D, inclusive, of c.149 of M.G.L. A schedule of the prevailing wages is included in the Minimum Wage Rates Section.

#### 15. Sub-bids

No sub bids shall be sought in connection with this Contract.

#### 16. All bidders shall submit the following supplemental information with a fee proposal:

- a. Name, address and phone number of a minimum of three (3) references that can vouch for the performance of the bidder
- b. Proof of Liability and Worker's Compensation Insurance Coverage
- c. Completed tax attestation form
- d. Bid deposit

## **II LOCATION OF WORK**

1. Work under this contract shall include all equipment, labor, material and services to upgrade the traffic signals as indicated at the following intersections in Arlington, Massachusetts.
  1. Massachusetts Avenue and Park Avenue
  2. Massachusetts Avenue and Brattle Street
  3. Massachusetts Avenue and Lockeland Avenue/Schouler Court
  4. Mystic Street and Summer Street
  5. Highland Avenue and Gray Street
  6. Park Avenue and Florence Avenue
  7. Massachusetts Avenue and Mill Street/Jason Street
  8. Warren Street and Medford Street

## **III PROPOSAL**

To the Town of Arlington, Massachusetts, herein called the TOWN, acting through its Town Manager; the undersigned, as bidder, declares as follows:

- a. The only persons or parties interested in this proposal as Principals are named in this proposal;
- b. This proposal is made without collusion with any other Person, firm or corporation;
- c. He has carefully examined the requirements of the proposed work;
- d. This proposal is based solely on his own investigation and research and not in reliance upon any survey, report or representations of any employee, officer or agent of the TOWN; and the undersigned proposes and agrees that if this proposal is accepted, he will contract with the TOWN, this Contract Bid Form being part of and included in said CONTRACT, to provide all necessary supervision, labor, equipment, machinery, tools, apparatus, and other means of service necessary to complete the requirements in the CONTRACT; and that he will take in full payment thereof the following sums to wit:

Bidders must bid on each item. All entries in the Contract Bid Form must be made clearly and in ink, and prices must be written in both words and figures in the space provided. Bidders should insert computed totals in the spaces provided therein:

**Traffic Signal Equipment Upgrade Project; BID #14-31 (see Definition of Items)**

Item	Estimate		Description	Proposal		
	Quantity	Unit		Unit Price	Amount	
1	1	LS	Massachusetts Ave & Park Avenue	\$ /EA	\$	
			Traffic Signal Upgrade - Emergency Pre-emption			
2	1	LS	Massachusetts Ave. & Brattle St.	\$ /EA	\$	
			Traffic Signal Upgrade - Emergency Pre-emption			
3	1	LS	Massachusetts Ave. & Lockeland Ave./Schouler Ct.	\$ /EA	\$	
			Traffic Signal Upgrade - Emergency Pre-emption			
4	1	LS	Mystic St. & Summer St.	\$ /EA	\$	
			Traffic Signal Upgrade - Emergency Pre-emption			
5	1	LS	Highland Ave. & Gray St.	\$ /EA	\$	
			Traffic Signal Upgrade - Emergency Pre-emption			
6	1	LS	Park Ave. & Florence Ave.	\$ /EA	\$	
			Traffic Signal Upgrade - Emergency Pre-emption			
7	1	LS	Massachusetts Ave. & Mill St./Jason St.	\$ /EA	\$	
			Miscellaneous upgrades			
				Total (in figures & written):	\$	
					_____ Dollars	
					& _____ Cents	

**Bid Alternate #1**

8	1	LS	Warren St. & Medford Street	\$	/EA	\$
			Traffic Signal Upgrade - Emergency Pre-emption			
				Total (in figures & written):	\$	
					_____ Dollars	
					& _____ Cents	



## IV SCOPE OF WORK

### 1. Traffic Signal Equipment Upgrades

This Invitation for Proposals is for work to update traffic signal controls as indicated. Work shall include all equipment, labor, material and services to upgrade the specific improvements at various locations in Arlington Massachusetts. Work under this contract shall be in accordance with all applicable standards, specifications and industry practices.

The equipment upgrade requirements shall be as summarized below and further detailed in the Definition of Items and specifications. Additionally, the proposed work at Massachusetts Avenue & Mill St./Jason St. shall be in accordance with the "Traffic Signal Plan, Massachusetts Avenue at Mill Street/Jason Street" Improvements on Massachusetts Avenue., dated May 7, 2014 and prepared by Green International Affiliates, Inc. Work shall consist of all items indicated on the plan including signage, but **shall not** include pavement markings and median island modifications.

The location and equipment upgrades are as follows:

- a) Massachusetts Avenue and Park Avenue
  - i. Emergency pre-emption
- b) Massachusetts Avenue and Brattle Street
  - i. Emergency pre-emption
- c) Massachusetts Avenue and Lockeland Avenue/Schouler Court
  - i. Emergency pre-emption
- d) Mystic Street and Summer Street
  - i. Emergency pre-emption
- e) Highland Avenue and Gray Street
  - i. Emergency pre-emption
- f) Park Avenue and Florence Avenue
  - i. Emergency pre-emption
- g) Massachusetts Avenue and Mill Street/Jason Street
  - Miscellaneous Improvements including:
    - 1. replace controller
    - 2. replace one signal head
    - 3. add new pedestrian signal heads
    - 4. add audible pedestrian signals
    - 5. modify controller phasing and settings
- h) Warren Street and Medford Street
  - i. Emergency pre-emption

### 3. Major Item List

#### Pre-Emption Upgrades

- 7 - Optical Emergency Pre-emption System, including at a minimum the following equipment and any other incidental equipment or work to provide for a Completely functional and fully operable Emergency Pre-emption system.
  - 7 - Pre-emption phase selectors
  - 7 - Emergency Pre-emption strobe light
  - 24 - Emergency Pre-emption receivers

#### Massachusetts Ave and Mill St./Jason St. Upgrades

- 1 - TS-2 (Type2) Traffic Signal Controller
- 1 - Signal Head, 1 - Way, 4 section, LED, 12" lenses
- 8 - Pedestrian Signal heads, 2 section, LED, 12" lenses
- 8 - Pedestrian Push Button assembly, sign, saddle and audible pedestrian indications

### 4. General

All work done under this contract shall be in conformance with the Commonwealth of Massachusetts Department of Public Works STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 1988, THE SUPPLEMENTAL SPECIFICATIONS DATED JUNE 26, 1989, THE SUPPLEMENTAL SPECIFICATIONS DATED AUGUST 7, 1991, THE 1977 CONSTRUCTION STANDARDS, THE 1988 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, the 1981 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, and these SPECIAL PROVISIONS.

## V SPECIAL PROVISIONS

### 1. Definition of Terms

All reference to Department herein and in the Commonwealth of Massachusetts, Standard Specifications for Highways and Bridges, 1988, shall refer to the Owner" as the Department of Public Works of the Town of Arlington."

### DEFINITIONS OF ITEMS

#### ITEM #

1. **Massachusetts Avenue & Park Avenue, Emergency Pre-emption:**

This work shall consist of the installation of a completely functional and fully operable Opticom (or equivalent) emergency pre-emption unit. Activation shall occur on approach from all four (4) directions; East, West, North and South. Payment shall be made by Lump Sum.

2. **Massachusetts Avenue & Brattle Street, Emergency pre-emption:**

This work shall consist of the installation of a completely functional and fully operable Opticom (or equivalent) emergency pre-emption system. Activation shall occur on approach from all three (3) directions; East, West and North. Payment shall be made by Lump Sum.

3. **Massachusetts Avenue & Schouler Ct./Lockeland Ave., Emergency Pre-emption:**

This work shall consist of the installation of a completely functional and fully operable Opticom (or equivalent) emergency pre-emption system. Activation shall occur on approach from two (2) directions; East and West. Payment shall be made by Lump Sum.

4. **Mystic Street & Summer Street, Emergency Pre-emption:**

This work shall consist of the installation of a completely functional and fully operable Opticom (or equivalent) emergency pre-emption system. Activation shall occur on approach from all four (4) directions; East, West, North and South. Payment shall be made by Lump Sum.

5. **Highland Ave. & Gray Street, Emergency Pre-emption:**

This work shall consist of the installation of a completely functional and fully operable Opticom (or equivalent) emergency pre-emption system. Activation shall occur on approach from all four (4) directions; East, West, North and South. Payment shall be made by Lump Sum.

6. **Park Avenue and Florence Avenue, Emergency Pre-emption:**

This work shall consist of the installation of a completely functional and fully operable Opticom (or equivalent) emergency pre-emption system. Activation shall occur on approach from all four (4) directions; East, West, North and South. Payment shall be made by Lump Sum.

**7. Massachusetts Avenue and Mill Street/Jason Street: Miscellaneous Upgrades:**

Upgrades shall be in accordance with the "Traffic Signal Plan, Massachusetts Avenue at Mill Street/Jason Street "Improvements on Massachusetts Avenue., dated May 7, 2014 and prepared by Green International Affiliates, Inc. Work shall consist of all items indicated on the plan including signage, with the exception of pavement markings median island modifications.

- Replace existing TS-1 traffic signal controller with a new TS-2 (Type 2) traffic signal controller.
- Replace one signal head facing eastbound traffic on Massachusetts Avenue with a new four-section signal head with 12-inch lenses. The new four section signal head shall have a bi-modal left turn arrow that can display both a green arrow and a yellow arrow within a single section of the signal head.
- Remove existing pedestrian signal heads and install eight (8) new pedestrian signal heads with countdown indications to replace existing pedestrian signal heads.
- Audible pedestrian signals will be installed on all corners of the intersection.
- Split phasing for Mill Street and Jason Street will be implemented to eliminate conflicts between these two approaches.
- The exclusive pedestrian phase will be removed and replaced with concurrent pedestrian phasing. The concurrent pedestrian phases will have a 3-5 seconds lead interval, to allow pedestrians to safely enter the crosswalk before vehicles receive a green signal indication.
- Optimized traffic signal timings, based on the proposed signal phasing changes.

**8. Bid Alternate #1 - Warren Street and Medford Street, Emergency pre-emption:**

This work shall consist of the installation of a completely functional and fully operable Opticom (or equivalent) emergency pre-emption system. Activation shall occur on approach from all three (3) directions; East, North and South. Payment shall be made by Lump Sum.

**2. List of Major Items**

<b>Quantity</b>	<b>Description</b>
8	Optical Emergency Pre-emption System
1	controller
1	signal head
8	new pedestrian signal heads
4	new audible pedestrian signals
8	pedestrian buttons

**3. Pre-construction Meeting**

A pre-construction meeting is required prior to the commencement of work. Meeting shall include contractor, Arlington Engineering Division and Town of Arlington Public Safety Department; Police Department and Fire Department.

#### 4. Testing

Equipment shall be installed completely functional, and demonstrated to be fully operable from a Fire Department emergency vehicle operated by Fire or Police Department personnel. All equipment, materials and work incidental to meet professional and safe work standards is to be included. All labor compensation must meet current State Wage Rates.

#### 5. Work Schedule

Work on this project is restricted to standard 5-day work week, with hours from 7:00am to 5:00pm. Any work that may impede traffic flow may be restricted to the hours of 9:00am to 3:00pm and shall ultimately be decided by the Arlington Police Department. These requirements shall apply to the Prime Contractor and all Subcontractors working on the same shift. No work shall be performed on this Contract on Saturdays, Sundays, or Holidays without permission from the owner.

#### 6. Time of Completion

The work specified under this contract shall be completed by October 31, 2014.

#### 7. Performance, Labor and Material Bonds

A bond in the sum 50% of the total amount of the Contract by the successful bidder and an additional bond in equal amount covering the payment for all labor and materials used in the work shall be required. A surety company authorized to do business in Massachusetts and satisfactory to the Town of Arlington must provide these bonds. These bonds shall be required at the execution of the Contract. Attorneys-in-fact who sign contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

#### 8. Bid Submission

Each bid must be submitted in a sealed envelope bearing on the outside the name of the bidder, his/her address, and the name of the project for which the bid is submitted, and the name and number of the Contract for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as follows:

Bid Documents  
Purchasing Director  
BID # 14-31, TRAFFIC SIGNAL EQUIPMENT UPGRADE PROJECT  
Town of Arlington  
730 Massachusetts Avenue  
Arlington, Massachusetts 02476

The Owner will receive sealed bids until the time, and at the location designated in the Notice to Contractors. Bids received after this time will not be accepted. All interested parties are invited to attend; bids shall be opened publicly and read aloud.

## 9. Interpretation of Basic Estimate of Quantities

Attention is directed to the fact that the quantities of work to be done are based on observations and available data. The estimated quantities are approximate and should be used only as a guide. No quantities are guaranteed under this contract.

## 10. Prosecution of Work and Provisions for Travel

The Contractor shall give notice in writing to the Engineer at least seven days in advance of beginning any work affecting the maintenance of traffic where work affects the street in use by the public.

Before starting any work under this Contract, the Contractor shall submit his schedule of operations as provided herein.

The Contractor must prosecute the work efficiently and with the least possible delay.

The Contractor shall provide safe and convenient means of access to all buildings of property along the line of work at all times, coordinate the scheduling of safety and traffic details with the Arlington Police Department, and provide notification to the Arlington Department of Public Works and direct abutters at least one (1) business day prior to commencement of work adjacent to said abutter property.

## 11. Provisions for Access at All Locations

The Contractor shall cooperate with the various utility companies and provide access through a worksite if required for their work in connection with this project.

All permanent and temporary surfaces open for traffic during construction shall be maintained by the Contractor, as directed, in accordance with the provisions of herein.

THE TOWN WILL NOT ACCEPT ANY MATERIALS DELIVERED TO ANY PROJECT IN MOTOR VEHICLES OR SEMI-TRAILER UNITS THAT EXCEED THE LEGAL MAXIMUM GROSS WEIGHT ALLOWED FOR THE PARTICULAR CLASS, AS SPECIFIED IN SECTION 19 A OF CHAPTER 90 OF THE GENERAL LAWS OF MASSACHUSETTS.

## 12. Insurance Requirements

The limits of the several kinds of liability insurance required for this Contract, in addition to insurance for Workmen's Compensation are as listed as follows:

- a. Bodily Injury Liability insurance, in an amount not less than Five Hundred Thousand Dollars (\$500,000) for injuries, including wrongful death to any one person, and subject to the same limit for each person to an amount of not less than One Million Dollars (\$1,000,000) as account of one accident.
- b. Broad Form Property Damage Liability Insurance in an amount not less than Five Hundred Thousand Dollars (\$500,000) for damages on account of any one accident, and in an amount not less than One Million Dollars (\$1,000,000) for damages on account of all accidents.

c. Automobile Bodily Injury Liability Insurance, in an amount not less than Five Hundred Thousand Dollars (\$500,000) for injuries, including wrongful death to any one person and subject to the same limit for each person in an amount not less than One Million Dollars (\$1,000,000) on account of one accident.

d. Automobile Property Damage Insurance in an amount not less than Five Hundred Thousand Dollars (\$500,000) for damages on account of any one accident and in an amount not less than One Million Dollars (\$1,000,000) for damages on account of all accidents.

e. Contractors Public Liability Insurance in an amount not less than Five Hundred Thousand Dollars (\$500,000) for each occurrence and in an amount not less than One Million Dollars (\$1,000,000) annual aggregate.

### 13. Maintenance of Traffic

During construction, the Contractor shall maintain two way traffic at all times. The Contractor shall make every effort to maintain access to all drives at all times. If access to any drives cannot be maintained, the Contractor shall notify the Engineer and persons affected, in writing, at least one (1) week in advance of the planned discontinuance. In any case, the access shall not be discontinued for more than two (2) consecutive days without obtaining the written authorization of the Engineer.

A minimum of 24-hours prior to commencing work, the permit applicant shall contact the Town of Arlington Police Department to determine if a Police Safety Detail will be required for the proposed work.

The use of a Police Safety Detail does not eliminate the need for proper warning signs and traffic control devices during the course of construction.

It shall be the sole responsibility of the contractor to provide & employ appropriate construction signage and barriers/cones/etc as needed. All signs and devices shall be in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways and all applicable MassDOT Standards/Requirements.

Additional signage and devices shall be provided and installed as deemed necessary by the Department of Public Works and/or Police Department for the safe and efficient performance of the work and the safety of the traveling public.

During the entire course of work, the applicant and/or owner shall be responsible to properly delineate & protect the job site in accordance with current MUTCD Standards to the full satisfaction of the Arlington Police Department. Failure or inability to provide appropriate devices & signage may result in work being suspended at the discretion of the Town of Arlington.

Reflective barrels, construction signage and other devices deemed necessary by the Engineer shall be utilized to direct vehicular and pedestrian traffic safely through the construction zone. All work left unattended shall be plated or ramped and suitable work safety devices and methods shall be utilized as necessary. All sidewalks and ramps shall be barricaded with

reflective barrels and warning flagging where surfaces are impaired. If determined, signs may be needed on sidewalks to direct pedestrians around construction zone. Temporary stop and one-way signs may be needed until permanent signs are installed.

All signs, barricades, and barrels shall be in accordance with materials Specification M9.30.2 of the Department's "Standard Specifications for Highways and Bridges, 1988 Edition.

#### 14. Protection of Utilities and Property

The Contractor shall be responsible for maintenance and protection of all utilities and shall repair at his/her own expense any damage to such structures caused by his/her act or neglect, and shall leave them in as good condition as they were previous to the commencement of the work. In cases of damage to utilities caused by him resulting in an emergency, the Contractor shall promptly warn the Owner and shall, if requested, furnish laborers to work temporarily under the Owner's direction in getting access to the utility. Pipes or other structures damaged by the operation of the Contractor may be repaired by the Town, Department or Company, which suffers the loss. The cost of such repairs shall be at the expense of the Contractor.

#### 15. Notice to Owners of Utilities

When necessary, written notice shall be given by the Contractor to all public service corporations or officials owning or having charge of publicly or privately owned utilities of his/her intention to commence operations affecting such utilities at least one week in advance of the commencement of such operations, and the Contractor shall at that time file a copy of such notice with the Engineer.

Before the Contractor begins any work or operations, which might damage any subsurface structures, he shall carefully locate all such structures and conduct his/her operations so as to avoid any damage to them. The following are the names and addresses of the utilities presumed to be affected, but the completeness of the list is not guaranteed:

Town of Arlington  
Town Engineer, Wayne A. Chouinard P.E. (781- 316- 3320)  
51 Grove Street  
Arlington, MA. 02476

Town of Arlington  
Water/Sewer/Highway, Operations, Jim Dodge (781- 316 -3373)  
51 Grove Street  
Arlington, Ma. 02476

National Grid (Gas) (781-466-5099)  
John J. Warchol  
52 Second Ave  
Waltham, MA 02451

Verizon (781-939-3562)  
Bob Parks  
285 Locust St #1  
Woburn, MA 01801

N-Star Corp. (617-541-7071)  
One Nstar Way SW-340  
Westwood, MA 02090



## **VI CONSTRUCTION METHODS AND MATERIAL SPECIFICATIONS**

Work associated with this project shall adhere to the applicable portions of the current Massachusetts Department of Transportation Standard Specifications for Highway and Bridges, Section 815 the following attached specifications and requirements:

### **1. Section 815 Traffic Control Signals**

#### **Section 815 TRAFFIC CONTROL SIGNALS**

All work performed under these Items shall be in accordance with the relevant provisions of Section 815 of the Standard Specifications for Highways and Bridges and the following:

Work at the Massachusetts Ave. and Mill St./Jason St. intersection shall also conform with the "Traffic Signal Plan, Massachusetts Avenue at Mill Street/Jason Street "Improvements on Massachusetts Avenue., dated May 7, 2014 and prepared by Green International Affiliates, Inc. Work shall consist of all items indicated on the plan including signage, with the exception of pavement markings median island modifications.

The existing signal installations shall be operational throughout the construction period and until the reconstructed new traffic signal equipment is installed, tested and ready for operation.

The Contractor shall be responsible for delivery of existing parts and control equipment to the Arlington DPW, as directed by the Engineer.

All equipment shall be listed on MassDOT's Qualified Construction Materials List.

The Contractor shall not begin any work until approval of the shop drawings and Manufacturer's data has been approved in writing from the Engineer. Approval of these drawings will be general in character and shall not relieve the Contractor from the responsibility of, or the necessity of, furnishing materials and workmanship conforming to the plans and specifications.

The Contractor shall deliver to the Engineer a certificate of compliance by the Manufacturer for all materials purchased from the manufacturer.

#### **Regulations and Code**

All electrical equipment shall conform to the standards of the NEMA and UL as applicable. In addition to the requirements of the Contract Drawings, Standard Specifications, and Special Provisions, all materials and workmanship shall conform to the requirements of the NEC, ASTM, OSHA and ANSI, all applicable State and Local codes and Department of Public Safety regulations.

#### **Fine Tuning, Adjustment and Testing Period**

After the Contractor has finished modifying the controller and installing all other associated signal equipment to operate as specified in the contract documents, the fine tuning, adjusting and testing period shall begin. During this period, the Contractor under the direction of the Engineer will make necessary adjustments and conduct tests to ensure safe and efficient operation of the equipment. This period shall not last for more than 30 days. No request for final acceptance will be considered until successful completion of the testing period.

### **Guarantees of the Traffic Signal System**

The Contractor shall troubleshoot the system and replace any part of the traffic signal control equipment installed by the Contractor that is found to be defective in workmanship, material, or manner of functioning within six months from date of final acceptance of the installation under this Contract. This work shall be incidental to the pertinent item.

The one-year warranty period on equipment stipulated in Subsection 815.20 of the Standard Specifications shall apply.

### **Entering Private Utility Company Facilities**

The electrical service conduit and cable from the utility pole, to the traffic signal control cabinet will be provided by the Contractor. The local electric utility company will connect the terminals of the control cabinet to the source of supply.

The installation of conduit and wiring on or in local electric utility company facilities shall be in strict accordance with the regulations of the utility company. All work performed by the Contractor on local electric utility company structures shall be performed under the direct observation of a utility company inspector or representative.

The Contractor will be responsible for notifying NSTAR of construction commencement and shall arrange and coordinate the schedule for the installation of the electrical service to the control cabinets. Under no conditions shall the Contractor make permanent patch to the roadway or apply the final roadway surface if the roadway is to be resurfaced, or until services to the control cabinets have been completed.

The contractor will be responsible for all costs and fees related to the service connection provided by NSTAR. The payment to NSTAR shall be incidental to the relevant item.

**Note:** For the purpose of these paragraphs, the phrase "Traffic Signal Control Equipment" is intended to include, but is not limited to: controllers, detectors, signal housings, supporting structures, cabinets, wires, conduit and all other ancillary electrical equipment used for traffic control.

### **Controllers and Cabinets**

The controllers, malfunction management units, detector amplifiers, bus interface units and all other ancillary traffic signal control components included in the traffic control cabinet shall comply with the National Electrical Manufacturers Association (NEMA) Standard No. TS 2, Traffic Controller Assemblies.

The top of the concrete base for the controller cabinet shall be 18 in. above grade. Controller cabinet foundations shall be located so that an accessible sidewalk width is maintained. Anchor bolts shall be internal to the cabinet.

### **TS 2 Type 1 Controllers and Cabinet Assemblies**

#### **Controller**

Controllers shall conform to Section 3, Controller Units of NEMA No. TS 2, Traffic Controller Assemblies. The controllers shall be supplied in an 8-phase TS 2 Type 1 configuration.

Controllers shall utilize an input/output interface conforming to Section 3.3.1 of the NEMA TS 2 Standard for all input/output functions with the backpanel terminals and facilities, the malfunction management unit, detector rack assemblies and auxiliary devices.

The local controller shall be capable of being operated in the full-actuated mode, in the free mode and as semi-actuated in the coordinated mode. The controller shall be Type 8DW, keyboard entry, menu-driven unit mounted in an eight-phase cabinet. The controller unit shall meet all applicable requirements of the N.E.M.A. Standard Publication No. TS-2, Type 1, MassDOT's Current Standard Specifications, and include the following as minimum requirements for the "Keyboard Entry Controller Unit":

- a. The Keyboard Entry Controller Unit must be type-tested and approved by the Department.
- b. The controller shall have hard-wire interconnect capability and internal time base coordination logic. The coordination control shall have the capabilities to operate as described under Section 815.41 of the Standard Specifications.
- c. The controller shall have a data transfer/printer port for data transfer to another controller, printer or laptop PC computer. A port shall be provided for uploading or downloading controller-operating parameters from a laptop PC computer.
- d. The controller shall have a security code function.
- e. The controller unit shall have internal fire preemption control capabilities.
- f. The phase or phases selected for "call to non-actuated" (C.N.A.) modes shall be determined as needed by keyboard entries.

The Contractor's attention is directed to Table 2, Required Signal Light Switching Assemblies, Section 815.41 of the Standard Specifications. The Contractor shall furnish the appropriate type and number of load switches and place unutilized load switches in the control cabinet for future use. Load relays shall be easily replaced using a screwdriver. Component relays requiring soldering are not acceptable.

In addition to the convenience outlet as described under Subsection 815.41, a lamp with an on/off switch shall be installed in the controller cabinet.

### **Master Controller**

The master controller shall be compatible with the existing and proposed NEMA TS2-Type 1 local controllers. General requirements are as follows:

### **Construction**

The unit shall consist of a mainframe suitable for shelf mounting, with appropriate interface harnesses.

Operator programmable data entry shall be accomplished through a menu driven keyboard and a display located on the front panel.

Connectors shall be provided for interconnecting all inputs and outputs with their external control circuits.

Timing shall be accomplished by digital methods and with power applied shall use the power line frequency as the time base.

All components shall be operated in accordance with good commercial practice to optimize life and performance.

The design goal shall be such that, under 24 hour a day operating conditions in their circuit applications, all components shall have a life of not less than 5 years.

The circuit reference designation for each component on the printed circuit board shall be clearly marked immediately adjacent to the component.

### Electrical

The master controller shall be designed for use of nominal 120 volt, 60 Hz single phase alternating current. It shall operate correctly in the voltage range of 95 to 135 volts AC.

All DC inputs and outputs shall conform to NEMA TS2 - Type 1 standards for transition zone, response time, current capability, surge and noise immunity, as well as all other applicable electrical specifications.

### Environmental

The master controller shall maintain all its programmed functions from -30 degrees F to +165 degrees F.

The unit shall perform to this specification when operated in relative humidity from 5% to 95%. The unit shall conform to all applicable portions of the Environmental and Operating Standards as described in the NEMA Standards TS2-1992.

### Functional

All master control equipment shall be placed in the cabinet at the Massachusetts Avenue at Bates Road/Marion Road (Location No. 2) intersection. The master control equipment shall be capable of maintaining coordination between all interconnected locations. All controllers shall have internal coordination operation.

The master control equipment shall also be capable of providing a yearly time program for selecting four cycle lengths, three splits, and three offsets plus flashing operation for control of local controllers. The schedule shall be as included and/or as shown on the plans.

The Contractor shall program each programmable local hardware component according to the "Time of Day Schedule" as follows:

#### Time of Day Schedule (Back Up)

	6 AM-10 AM	10 AM-12 PM	12 PM-3 PM	3 PM-7 PM	7 PM-9 PM	9 PM-6AM
Mon – Fri	1-1-1	Free	Free	2-2-2	Free	Free
Sat	Free	Free	Free	Free	Free	Free
Sun/Hol	Free	Free	Free	Free	Free	Free

NOTE: Cycle-Split-Offset

NOTE: Patterns shown on the plans are as follows:

AM	1-1-1
PM	2-2-2

Note: Following implementation of the system, thresholds shall be revised as fine tuning occurs.

### Cabinet

The TS 2 Type 1 cabinet shall meet the requirements of configuration 3 as defined in Table 5.3.1-1, "Type 1 Configurations" of the NEMA TS 2 Standard. The cabinet shall be fabricated of sheet aluminum to size six (6) dimensions as specified in Table 7.3-1 of the NEMA TS 2 Standards.

It is intended that equipment be mounted and that all necessary provisions for mounting and wiring all equipment shall be made at the factory of the controller equipment manufacturer prior to shipping the cabinet and the control components. All necessary terminal strips, brackets, etc., shall be installed at the factory. Thus, the amount of field wiring shall be kept to a minimum. Terminals for auxiliary equipment to be installed shall be clearly and permanently labeled as to functions.

No equipment components shall be stacked. Brackets, shelves, hangers, or other supports designed to assure convenient accessibility for inspection and maintenance shall be installed at the factory. Adjustable aluminum shelving is required. No plywood shelving, side panels or rear panels shall be used in any cabinet.

A meter socket approved by the local electric utility shall be mounted on the side of the cabinet. The Contractor shall furnish and install the meter socket and the electric utility company shall furnish and install the meter. A separately fused, grounded duplex outlet and a light receptacle shall be installed. Adequate 120V AC power terminals shall be provided.

A thermostatically controlled exhaust fan rated at 100 cubic feet per minute, minimum, shall be mounted in a screened opening in the top of the cabinet. Screened intake vent louvers near the bottom and/or sides shall have an effective area at least twice that of the opening provided for the exhaust fan. Standard size, replaceable, fiberglass air filters shall be provided.

The color of the controller cabinets shall be black exterior with white interior.

Each main door shall be designed to open easily and to close securely while retaining weatherproof quality. Handle and latch mechanisms shall be designed for trouble-free operation. A latching mechanism shall be supplied to hold the main door in the open position for use when servicing equipment.

A second hinged door, mounted on the main door, shall give access to designated switches on a "police panel". This door shall be provided with a different lock and key. Mounted within the "police panel" door shall be switches to control flashing operation and shutdown. The cabinet doors shall be switch-wired for an alarm.

### **Flasher**

Flashers shall comply with Subsection 6.3 of the NEMA TS 2 Standard and be equipped with two output indicator lights which will show flashing power out to the cabinet assembly.

### **Flash Transfer Relays**

Flash transfer relays shall comply with Subsection 6.4 of the NEMA TS 2 Standard.

The field electrical loading for flash operation shall be wired through the transfer relays such that the load on the 2-circuit flasher is a balanced as possible within the limitations of the signal phasing.

### **Load Switches**

Load switches shall comply with Subsection 6.3 of the NEMA TS 2 Standard and be equipped with two output indicator lights which will show flashing power out to the cabinet assembly. A full complement of load switches to accommodate each available position of the back panel shall be provided.

### **Bus Interface Units**

The Bus Interface Unit (BIU) shall comply with Section 8 of the NEMA TS 2 Standard. The BIU shall be fully interchangeable with any other manufacturer's unit and interchangeable in a NEMA TS 2 Type 1 cabinet assembly.

The BIU shall perform the interface function between port 1 at the controller unit, the malfunction management unit, loop detector rack assembly, and the backpanel terminal and facilities.

At a minimum, two LED indicators shall be provided on the BIU front panel. One indicator shall serve a dual use; as a power-on indication and as a diagnostic indicator for proper operation of the device. The second indicator shall serve as a transmit indicator illuminating each time data is transmitted.

### **Malfunction Management Unit**

The malfunction management unit (MMU) shall comply with Section 4 of the NEMA TS 2 standard. The MMU shall be capable of operating as either a Type 16 with 16 channels (8-vehicle, 4-pedestrian, 4-overlap) or a Type 12 with 12 channels (8-vehicle, 4-overlap). The MMU's supplied shall be configured to operate as Type 16 units.

The MMU's, in either the Type 16 or Type 12 configuration, shall be capable of operating in a NEMA TS 2 Type 1 cabinet or a NEMA TS 1 cabinet without loss of functionality.

### **Loop Detector Amplifier Rack Assembly**

The loop amplifiers supplied shall be a type C rack type, two channel units with delay and extension timing internal to each unit's channel conforming to section 6.5 of the NEMA TS 2 standards.

The detector shall fit in a standard card rack conforming to Section 6.5 of the NEMA TS 2 Standard. The detector rack assembly shall be a Type 2 configuration conforming to Section 5.3.4 of the NEMA TS 2 Standard. The two-channel card rack loop amplifier unit shall occupy one of the rack slots.

The detector unit shall be capable of operating in a voltage range from 10.8 to 26.5 VDC. The unit shall operate from the cabinet's external power supply at 12 VDC. Each amplifier channel shall be labeled with the detector number.

Type 8DW cabinets shall be supplied with a minimum of four, two-channel card rack loop amplifiers. Unless otherwise required by the plan's detector chart, phase call assignments of each amplifier channel shall be wired to

### **ITEM 815.2 through 816.04 (Continued)**

one of the traffic controller's vehicle phase inputs; one for each of the eight phases for an 8DW cabinet. Additional amplifiers shall be supplied if so required by the major item list on the plans.

### **Spare Equipment**

The Contractor shall provide the following spare signal equipment in each of the traffic signal controller cabinets:

1. A full complement of load switches to accommodate each available position of the back panel;

2. A full complement of flash transfer relays to accommodate each available position of the back panel;
3. Two (2) 2-channel loop detector amplifiers;
4. A 25 foot RS-232 cable for communication function with a laptop computer.

### **Optical Emergency Preemption System**

The work consists of furnishing and installing optical traffic signal preemption systems ready for operation, as described herein and shown on the plans. Included in the work are the furnishing and installing of traffic signal preemption unit and related equipment, optical detection equipment and all necessary connections to the traffic signal controller. A separate cable shall be installed for the fire preemption equipment, apart from the traffic signal cable.

The fire preemption system shall consist of a data-encoded phase selector to be installed within the existing control cabinet. This unit will serve to validate, identify, classify, and record the signal from the optical detectors located on support structures at the intersection. Upon receiving a valid signal from the detector, the phase selector shall generate a preempt call to the controller initiating a preemption operation as shown on the plans.

The phase selector shall be a rack-mounted plug-in four channel, dual priority device. Programming the phase selector shall be via a PC-based computer utilizing unit specific software. One copy of software on a disk shall be supplied and licensed to the Town as part of this contract. A hard copy of final programming data shall be left in the control cabinet. The Contractor shall supply a complete set of interface cables for phase selector to laptop connection.

Emergency vehicles equipped with optical energy emitters transmit optical energy impulses to optical detectors mounted at the intersection. When optical energy impulses are received at the intersection, control of the signals shall transfer from the local controller to show a selected display shown on the plans to assist the vehicle through the intersection without conflict. After the vehicle has passed through the intersection, control of the signals shall then return to the local controller which shall restore the appropriate timings that were in effect prior to preemption.

### **1. General Operation and Description of Work**

The following description of work specifies the responsibilities involved in the installation of optical preemption equipment.

The Contractor is required to supply material and labor, required or shown for the complete installation of optical preemption equipment at the specified location in this project. Intersection preemption equipment required includes optical detectors, phase selectors, card rack, preemption indicator lights, cable, interfacing of preemption equipment to the local and system master, making electrical connections and all required incidentals.

The following outline the operational requirements of the optical preemption system:

- Operating sequence, as specified, shall be initiated when detector receives optical energy of the required repetition rate from an emitter.
- Detector shall transform the optical signals into electrical signals and transmit the electrical signal to the phase selector for processing.

- Phase selector shall cause the local or closed loop system master to show a selected display identical to one of the color interval displays normally available in the controller which will assist the emergency vehicles through the intersection without conflict.
- Phase selector shall allow the controller to release from hold and resume normal operation after optical energy signals are lost provided the desired green display has already been obtained. The controller shall not allow service following released to normal operation to any phase where an active call from a waiting vehicle or pedestrian does not exist. Detector cable for optical preemption equipment shall meet specifications of the system manufacturer.

The Contractor shall arrange for a trained representative from the manufacturer of the optical energy preemption equipment to perform field supervision, turn-on services, and the following:

- The Representative shall select the proper quantity and place and method of installing all components on each controller, to comply with the operational requirements shown in the preemption schedule included in these special provisions.
- The Representative shall instruct the Contractor and municipal personnel in the procedures of installation and operations.
- The Representative shall be available to assist, supervise and check all wiring to ensure proper operation.
- The Representative shall perform a final checkout to include initial adjustment of range and timing to acceptable standards within the capabilities of the intersection.
- The Representative shall initiate documentation for as-built drawings.
- The Representative shall demonstrate the system and instruct the drivers of fire fighting vehicles in the operation of the system.
- Any operation problems occurring within the next 30 days shall be corrected by the Field Service representative. This requirement is not intended to modify the Contractor's six-month guarantee obligation, as set further in an earlier portion of these Special Provisions.

The cost of these field supervision and turn-on services shall be included in the Lump Sum prices bid for traffic signal controls and no additional payment shall be made therefor.

## **2. Installation**

The preemption equipment manufacturer shall be responsible for preemption system design and documentation.

Preemption System Design and documentation shall include the following:

- Provide the installing agency with locations for detector installation. Suggested detector locations are shown on the plans and may be changed to improve the operation. Notice shall be given to the Engineer prior to any change.
- Provide the controller manufacturer, Engineer and owner with electrical diagrams.

The Installer shall install the equipment as recommended by the preemption equipment manufacturer's installation procedures and electrical diagrams in a neat and workmanlike manner.

Operating checkout includes the following:



- Verifying that the pre-emption system is properly installed as per the pre-emption equipment manufacture's recommendations and the electrical diagrams as provided by the pre-emption equipment manufacturer.
- Verifying that the priority system timing and range are property set. Pre-emption equipment warranties are put into effect.
- Instructing the vehicle drivers or their representative(s) in the operation of the pre-emption system.

### **3. Warranty**

All components of the preemption system specified herein, shall be warranted by the Manufacturer to be free of defects in materials and workmanship for a period of one year from the date the traffic signals were placed in continuous operation.

The Contractor shall repair or replace, at no additional cost, any part that fails in any manner during the warranty period, and six months after final acceptance of the project.

### **Preemption Confirmation Light**

A preemption confirmation light shall be provided and mounted as shown on the plans. It shall be positioned so it may be visible from all preemption approaches to each intersection. The light shall be weather tight and consist of a double flash clear, white strobe that shall be illuminated when the controller is in the emergency preemption phase. The indicator light shall meet ITE, NEMA, IMSA and MassDOT standards. It shall be capable of flashing at a rate of 60 to 75 flashes per minute. Candela intensity shall be a minimum of 1,000 for clear lenses.

### **Loop Detectors**

Loop detectors shall be installed in the roadway pavement for vehicle detection.

The detector lead-in cables shall be labeled, with the street name, phase, detector number and terminal numbers, both in the controller unit and in the pull box containing the detector lead in splice. This labeling and attachment shall be of durable materials such as brass or plastic, attached by wire or plastic ties.

Loop wire shall be encased in a protected plastic tubing of PVC or polyethylene plastic, IMSA 51 5, 0.25 – inch outside diameter, and the wire may have cross linked polyethylene insulation or THHN/THWN insulation.

Splicing insulator shall be an approved, re-enterable, body-splice kit with a non-hardening silicone gel sealing compound compatible with the wire insulation.

### **Splice and Connection**

Splicing and connections shall be made in the pull box nearest the roadway loop sensor but not exceeding four loops per pull box. All loops included in a detector group as shown on the plans shall be spliced in a single pull box. Each lead and lead in connector shall be stripped back and spliced using a pressure type wire connector applied with a crimping tool. Multiple loop sensors shall be identified as detailed on the plans.

Lead in splicing shall be staggered to prevent contact with each other. Each crimped splice shall be soldered and insulated. The insulation material shall be heat shrunk polyolefin. The shielded lead-in cable outer jacket and shield shall be stripped back sufficiently to ensure that the shield cannot come into contact with the spliced conductors.

Follow the instructions of the kit manufacturer for this procedure when installing the re-enterable splice kit. The above splice shall be done on the day of the loop wire installation to prevent the entrance of any moisture into the plastic tubing.

The lead-in conductors shall be connected to the appropriate terminals in the controller cabinet, by using crimped and soldered terminal ends. The heat source for soldering shall be electrical, not exceeding 30W capacity.

### **Testing of Loops**

The following test procedure as detailed below shall be performed in the presence of the Engineer before and after the loop sensor is sealed in the pavement. The cost of equipment, labor, and materials to perform such testing and similar re-testing following repairs, replacement, or adjustment of any detector within the project area shall be included in the price bid.

After installation of wire loop sensors in the roadway and installation of shielded lead-in connecting the loop sensors to the controller cabinet, each loop sensor and lead in combination shall be tested (at the controller cabinet) for proper installation. The resistance from lead to lead of the same loop shall not exceed three (3) ohms per 1,000 ft as measured by a high quality meter suitable for measurements of low resistance in the range of 1 to 6 ohms.

A meg-ohm meter test at 500 volts DC shall be made between the two leads of a loop/lead-in combination temporarily spliced together, but otherwise disconnected from all terminals, and the shield drain wire and the earth ground connection. These resistances shall be at least one hundred (100) meg-ohms or greater.

A meg-ohm meter test at 500 volts DC shall be made between lead-in shield and the earth ground rod. This resistance shall be at least one hundred (100) meg-ohms or greater.

The meter used for these tests shall be checked for calibration each day of use by using a resistor block of  $\pm 5\%$  resistors simulating loads of 1 meg-ohm, 20 meg-ohm and 100 meg-ohms. The observed meter reading shall be  $\pm 10\%$  of the nominal resistor load.

If any loop sensor and lead-in combination fails to pass any one of the four (4) tests, it shall be repaired and then re-tested on two occasions at least two (2) weeks apart, and then shall pass on each re-test occasion. If the loop sensor lead-in combination does not pass all these re-tests, a new loop sensor and/or lead-in shall be installed, and shall pass these tests, at no additional cost.

After the above tests have been satisfactorily completed, all loop sensor/shielded lead-in inductances shall be measured and a written report of the results shall be filed with the Engineer and a copy stored with the "box prints" at the intersection.

### **Mast Arm Foundation**

The Contractor shall obtain soil borings, as applicable at each proposed mast arm foundation location to support the design of each mast arm foundation. The Contractor shall be responsible for designing and constructing the foundations in accordance with Specifications, these Special Provisions and the relevant provisions and design parameters contained in MassDOT's Mast Arm and Foundation Details Standard Drawings; link to page:

[http://www.mhd.state.ma.us/default.asp?pgid=content/traffic/Mast\\_Arm\\_Foundation&sid=about](http://www.mhd.state.ma.us/default.asp?pgid=content/traffic/Mast_Arm_Foundation&sid=about) and the information contained in the boring logs.

Soil borings shall be paid for under the pertinent Items 191., 191.10 and 191.11.

The Contractor is responsible for the design of all mast arm foundations, regardless of soil conditions and any ledge that may be found at the proposed foundation locations. In the event that soil conditions or ledge prevent the use of the MassDOT standard foundation type, the Contractor is responsible for selecting and designing alternative foundation types. Alternative foundation types may include spread footings, coring and socketing into rock or other foundations previously used to support similar loads.

All shop drawings and calculations shall be stamped by a Professional Engineer registered in Massachusetts and submitted to the Engineer for approval.

Upon the Engineer's written approval, the Contractor may begin the placement of concrete for foundations for mast arms, signal posts, and cabinets. The Contractor shall not begin operations until receipt of the Engineer's authorization.

Anchor bolts shall be set accurately and tops shall be formed neatly. The top forming shall extend downward for a minimum of 24 inches on the side of any foundation. The lower portions of all foundations may be placed directly against undisturbed earth or may be formed at the option of the Engineer. Neither forms nor reinforcing for foundations may be set nor shall concrete be placed until the excavation has been inspected by the Engineer and approval to proceed has been given.

Foundations shall not obstruct sidewalks or crosswalks and shall be located such that an accessible sidewalk width is maintained. The top of foundations installed in sidewalks shall be set at grade with the sidewalk.

The Contractor shall submit shop drawings of any bolt circle details for approval by the Engineer. Anchor bolts shall be set accurately and tops shall be formed neatly.

## **Signal Housings**

### **Materials**

Vehicle Signal Heads - All indications shall be equipped with a cut-away visor, and red, yellow, and green LED signal modules.

Pedestrian Signal Heads - All indications shall be equipped with a hood visor, and lunar white and Portland orange LED signal modules.

### **Construction Methods**

The final adjustment of the facing of signals shall be made as required by the Engineer after all the signals at an intersection are operating, but prior to installing the through bolt above.

### **Traffic Signal LED Module**

All signal and pedestrian displays shall be equipped with LED signal modules. All red, amber, green, and pedestrian signal housings with the exception of optically programmed and fiber optic housings and shall conform to the following where applicable:

- ITE's Vehicle Traffic Control Signal Heads – Light Emitting Diode (LED) Arrow Traffic Signal Supplement, Dated April 3, 2006.
- ITE's Vehicle Traffic Control Signal Heads – Light Emitting Diode (LED) Circular Signal Supplement, Dated June 27, 2005.
- ITE's Pedestrian and Countdown Signal Modules Compliant to PTCSI - Part 2 Light Emitting Diode (LED), Dated, August, 2007.
- Energy Star / EPACT Program Requirements for Traffic Signals
- On the MassDOT Traffic Signal Approved Equipment List

An independent lab shall certify that the LED signal module complies with the applicable ITE specification. The independent report should be submitted to MassDOT for review unless the module is already on the approved list.

To prevent the LED module warranty from being voided, the connecting leads on the module shall not be cut. The original LED module leads shall be connected to the signal head terminal block as continuous wire without splices.

The LED signal module will be replaced or repaired by the manufacturer if it exhibits one of the following:

A failure due to workmanship or material defects within the first 60 months of field operation

A greater than 40 percent light output degradation or a fall below the minimum intensity levels (as defined by the latest ITE performance specifications) within the first 36 months of field operation

### **Backplates**

Backplates shall be aluminum with a louvered profile. Backplates shall have a 5 inch border width and which includes a 2" reflectorized yellow border. The border shall be made from an adhesive-backed retroreflective yellow micro-prismatic sheeting, Type III or IV, and cover the entire perimeter of the backplate. The sheeting shall be placed no closer than ½-inch to any single louver, and no sheeting shall cover any portion of a louver.

### **Visors**

All vehicular traffic signal indications shall come equipped with cut-away visors.

Pedestrian signal heads shall come equipped with cut-away visors.

Pedestrian Signal Heads – Heavy duty blind clamp fittings are required for mounting hardware.

Where mast arm mounting is required, including at intermediate arm locations, signal heads shall be all vertically fixed-mounted.

The final adjustment of the facing of signals shall be made as directed by the Engineer after all the signals at an intersection are operating, but prior to installing the through bolt above.

### **Ornamental Mast-Arm Assemblies**

The mast arm lengths shall be chosen according to the Plans. The completed pole structure shall be designed and constructed in accordance with the requirements of the current edition of

AASHTO “Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals” and the design parameters contained in MassDOT’s Mast Arm and Foundation Details Standard Drawings; link to page:

[http://www.mhd.state.ma.us/default.asp?pgid=content/traffic/Mast\\_Arm\\_Foundation&sid=about](http://www.mhd.state.ma.us/default.asp?pgid=content/traffic/Mast_Arm_Foundation&sid=about)

The Contractor shall furnish to the Engineer design calculations and weld details for the assembly selected. Design calculations shall be submitted with the Shop Drawings. All drawings and calculations provided by the manufacturer must be stamped by a Professional Engineer registered in the Commonwealth of Massachusetts, certifying that the designs provided meet the requirements. Only assemblies of prequalified manufacturers (obtained from the Bridge Engineer of the Massachusetts Department of Transportation – Highway Division) shall be used.

The Contractor shall install decorative ornamental bases, poles and mast arms. The ornamental equipment shall closely match the style of the proposed street lighting poles. The style of decorative ornamental bases, poles and mast arms shall be approved by the Town prior to ordering.

Acceptable Styles and Manufacturer (or approved equal):

Nostalgia Series – National Family  
Union Metal Corporation  
1432 Maple Avenue, NE  
Canton, OH 44705

Washington AC1 Base  
Valmont Industries, Inc  
One Valmont Plaza  
Omaha, NE 68154

VSI Sales, LLC  
P.O. Box 866  
Mars, PA 16046

The pole and arm shaft shall be fabricated from commercial quality hot rolled steel. The shaft shall have only one longitudinal, automatically, electrically welded joint, and shall have not intermediate horizontal joints nor welds. Only one (1) length of steel sheet shall be used, which shall be formed into a continuously tapered shaft, having a taper of approximately .14” per foot.

After forming and welding, the tapered shaft shall be longitudinally cold rolled over a hardened steel mandrel under sufficient hydraulic pressure to flatten the weld and increase the physical characteristics of the shaft. The shaft shall meet the chemical and physical properties of ASTM-A595 grade A, having a minimum yield strength of 55,000 psi. The cold rolling process shall form a 16 flute cross section for the pole upright shaft and an octaflute cross section for the arm shaft. The sixteen-fluted shaft shall have sixteen (16) equally spaced Doric flutes, sharp and clear cut throughout the entire length of the shaft. The arm shall be round tapered. The radius of the flutes crest shall not exceed the thickness of the metal in the shaft. Individually rolled flutes or round poles with a separate fluted sheathing will not be acceptable.

The base plate shall conform to AASHTO M270. The steel base plate shall telescope the shaft and be attached by means of two continuous welds, one on the inside of the base plate at the end of the shaft, and the other on the outside at the top of the base plate.

The pole shaft shall be furnished with a 3”x5” reinforcing hand hole frame and a ½” - 13 UNC grounding provision.

Nuts, washers and threaded portions of anchor bolts shall be galvanized and include two (2) galvanized hex nuts per bolt. Anchor bolts shall have a minimum yield strength of 55,000 psi.

Each pole shall be provided with an ornamental ball type pole top. The pole top shall be mechanically attached to the top of the shaft to provide access for wiring signals secured by a J-hook wire support, also provided.

Couplings for the mounting of traffic signal shall be welded into the pole for the purpose of supporting pole side mounted signals as required. Orientations and locations shall be supplied by the installer. No stainless steel banding shall be used.

Arms shall be field drilled by the Installer. A rubber grommet shall be furnished for each signal location. All signal heads and signs on the mast arms shall be fixed mounted. Rigid mount type signal hanger brackets shall be supplied sized to fit the arm diameters at the locations shown on the Contract Documents. These brackets shall be finished painted after galvanizing to match structure finish. No stainless steel banding shall be used.

The ornamental base shall be 2-piece split, clam shell, design with two (2) removable doors at 180 degrees. The base halves shall be split equally and fitted to provide a hairline seam when assembled. The base halves shall be factory assembled before shipment by means of internal lugs cast into the base bottom and stainless steel connecting pins at the top. External connecting hardware is not acceptable. The base casting shall fit securely around the pole and the base opening shall match the contour of the fluted pole. The base shall be connected internally by two (2) interlocking stainless steel pins and two (2) bolts, nuts, and washers. Finish paint base to match pole.

#### **Traffic Signal Posts and Bases**

Traffic signal poles and bases shall be decorative ornamental and supplied to match the mast arm poles and bases except that they shall be of appropriate scale to the application.

#### **Concrete Bases**

Foundations for 8 foot and 10 foot traffic signal posts shall be provided at locations shown on the Contract Drawings and shall be in conformance with the Standard Specifications and the Standard Drawings.

All sweeps to be installed in concrete bases shall be  $\frac{3}{4}$  inch steel sweeps with sufficient three inch steel riser to project above the finish grade of the base.

One spare sweep and riser, capped at both ends, shall be poured in place in each signal support foundation or base. The Engineer shall determine the location of the spare sweep. In any case no more than three sweeps shall be in any foundation.

#### **Traffic Signal Intersection Cable**

Intersection Cable - All traffic signal cable placed underground in conduit shall be stranded copper No. 12 AWG per IMSA 20-1. All traffic signal cable placed from the transformer base to the signal shall be stranded copper No. 14 AWG per IMSA 20-1.

Circuit protective device for the tap from No. 12 AWG to No. 14 AWG at the signal base shall not exceed 15 amps and shall comply with the N.E.C.

All traffic cables shall be labeled with suitable, durable, permanently legible tags or markers. Individual conductors, when not enclosed by the cable outer jacket, shall be bundled by phase and labeled with the appropriate phase designation.

A single cable shall be used in all conduit runs requiring up to 30 conductors. No more than 2 cables may be used for runs of 31 to 60 conductors, and no more than 3 cables may be used for runs of 61 to 90 conductors. These shall be the only cables carrying signal or pushbutton circuits in any one conduit.

A minimum of five (5) spare conductors shall be provided in the base of each signal post, mast arm pole and strain pole. Openings, where cables enter the base of a cabinet, shall be sealed with an approved elastic sealing compound. The open ends of conduits entering or leaving mast arms, posts and pull boxes shall also be sealed with the approved elastic sealing compound.

### **Service Connection**

All service cable shall be stranded copper No. 6 AWG. All power supply cable shall be labeled.

The Contractor shall furnish and install, or cause to be installed, all service equipment (120 volt, 60 cycle) to the satisfaction of the utility company (120/240 volt service connection will not be acceptable).

### **Wiring Diagrams**

Five sets of modified wiring diagrams for the control cabinet and all accessories shall be furnished including one mylar reproducible copy for the control cabinet when installed. All actual and potential terminal strip connections shall be shown. Accessory equipment includes flashers, switches, relays, logic modules, detectors, etc. All identification on the diagrams shall be as installed, and all field labeling shall be consistent with the diagrams. Furthermore, the format symbols, identifications, operating sequence, etc., common to all the intersection wiring diagrams shall be standardized and consistent with appropriate MassDOT standards. Before acceptance of the job, the five copies of all operating and maintenance manuals and complete and accurate parts lists shall be supplied.

All tests and any necessary repairs and replacements required to produce a fault-free system shall be included in the lump sum price bid for this Item.

### **Pedestrian Signal Heads**

The pedestrian signal heads shall be 16" countdown pedestrian signals. The signal shall consist of international symbols of an LED upright hand symbolizing "DON'T WALK" and a walking person symbolizing "WALK". The internal countdown module shall be comprised of two 7 segment digits, 8 inches high and made of 88 red LED's. The countdown module shall display the number of seconds remaining throughout the flashing "DON'T WALK" pedestrian, and blank out when not activated. All LED indications on the pedestrian signal shall have an automatic dimming circuit for night illumination to reduce long-term degradation to the LED's.

### **Pedestrian Push Buttons**

Pedestrian push buttons shall be located as close as practicable to the sidewalk curb ramp serving the controlled crossing and shall permit operation from a clear ground space. If two crosswalks, oriented in different directions, end at or near the same location, the positioning of pedestrian push buttons and/or legends on the pedestrian push button signs should clearly indicate which crosswalk signal is actuated by each pedestrian push button.

Pedestrian pushbuttons shall be installed on a saddle of cast aluminum with the approved MassDOT, Highway Division instructional legend, firmly attached to the casting. The saddle shall have a clear coat finish. The plunger shall be a maximum of 42 inches above the finished sidewalk and a minimum of two inches in the smallest dimension. The force required to activate controls shall be no greater than 5 lbs. This sign and saddle shall be used in locations where a pushbutton is shown on the plans

### **Accessible Pedestrian Signals**

Audible pedestrian signals shall be provided at the locations shown on the Contract Drawings. The accessible pedestrian signals/pedestrian push button shall provide visually impaired pedestrians with a locator tone that will allow them to find the push button to actuate the walk signal. Once the push button call has been placed, the button will provide both an audible and a tactile response during the WALK phase of the cycle. The push buttons shall clearly indicate by means of tactile arrows which crosswalk signal is actuated by each push button. Audible pedestrian signals shall be of the type which produces a percussive tone during the walk signal. The assemblies shall be capable of adjusting audible volume to ambient noise levels. Audible pedestrian signals shall conform to the requirements of the MUTCD, including sound level requirements for locator tone and percussive tone during the walk signal.

### **Equipment Finish and Color**

All traffic signal equipment shall be the color Gloss Black which shall match color number 17038 of the Federal Standard 595C "Colors used in government procurement." The inside of visors shall be Flat Black in accordance

with Federal color number 37038. This includes, but is not limited to signal posts, bases, signal heads, visors(outside), doors, mast arms, pushbutton saddles, controller cabinets, service meter socket boxes, hardware, and rigid mounting brackets for signals and signs.

The Contractor shall submit paint chips and sample finishes on aluminum and steel of the intended color prior to any work being done under this Item to the Town of Arlington and the Engineer for approval.

### **Method of Measurement and Basis of Payment**

Item 815 shall be measured and paid for at the contract unit price per Lump Sum per location. These prices shall include compensation for all labor, materials, equipment, and incidental costs to complete the work.

The cost of maintenance of the proposed traffic signal equipment shall be included in the lump sum bid price the relevant item, and no additional payments shall be made.

The work performed under Item 815.2, Item 816.01, Item 816.03, and Item 816.04 shall conform to the requirements for lead paint presented in Section 961 of the Supplemental Standard Specifications dated June 15, 2012.

All tests, repairs, and replacements required to produce a fault-free system shall be incidental to the pertinent item.



# CERTIFICATE OF NON-COLLUSION

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club or other organization, entity, or group of individuals.

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**(Signature of individual submitting bid or proposal)**

---

**(Name of individual submitting bid or proposal)**

---

**Name of Business**

---

**Date**

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Pursuant to M.G.L. Chapter 62C, Section 49A, I certify under the penalties of perjury that I have complied with all laws of the commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

---

Social Security Number or  
Federal Identification Number

---

Signature of Individual or Responsible  
Corporate Officer and Title

# NON-COLLUSION FORMS MUST BE SIGNED AND

**SUBMITTED WITH BID**

## **OSHA TRAINING**

The undersigned hereby certifies that it is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work; that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and that it will comply fully with all laws and regulations applicable to awards made subject to section forty-four A of Chapter 149 of the General Laws.

---

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**From:** "MA Prevailing Wage" <prevailingwages@state.ma.us>  
**To:** dlanzillotti@town.arlington.ma.us  
**Date:** 08/14/2014 11:52 AM  
**Subject:** Prevailing wage schedule for Wage Request number :20140814-006

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To view and print Weekly Payroll & Statement of Compliance Forms, click on [www.mass.gov/dols/pw](http://www.mass.gov/dols/pw).

PLEASE NOTE: The attached Prevailing Wage Schedule is valid for 90 days. An Awarding Authority should re-request an up to date Prevailing Wage Schedule if it has NOT opened bids or selected a contractor within 90 days of the issuance date of the attached prevailing wage schedule.

\*For MULTI-YEAR projects bid on or after 8/8/08, Awarding Authorities must request an Annual Update to this Prevailing Wage Schedule each year for the duration of the project, no later than two weeks before the anniversary date of the execution of the general contract. Annual updates are not required for projects that last LESS THAN ONE YEAR.

\*For CM AT RISK projects (bid pursuant to GL c.149A), Awarding Authorities must request a Prevailing Wage Schedule NOT sooner than 90-days before the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work.

\*For MULTI-YEAR CM AT RISK projects, Awarding Authorities must request an Annual Update to this Prevailing Wage Schedule each year for the duration of the project, no later than two weeks before the anniversary date, which is the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to procure construction scopes of work.

Apprentice wages (expressed as dollar figures) and the required benefits are listed on the Prevailing Wage Schedule. For further details, please see opinion letter PW-2010-03-03.16.10 (dated March 18, 2010) at [www.mass.gov/dols/pw](http://www.mass.gov/dols/pw).

Request Prevailing Wage Rates online at: [www.mass.gov/dols/pw](http://www.mass.gov/dols/pw).

THIS IS A SYSTEM-GENERATED EMAIL. PLEASE DO NOT REPLY TO THIS EMAIL.  
TO CONTACT DLS REGARDING PREVAILING WAGE MATTERS, CALL 617-626-6953.

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APPROVAL/DENIAL COMMENTS

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**Attachments:**

File: [20140814-006.pdf](#)

Size: 167k

Content Type: application/pdf



DEVAL L. PATRICK  
Governor

THE COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT  
DEPARTMENT OF LABOR STANDARDS

**Prevailing Wage Rates**

As determined by the Director under the provisions of the  
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

RACHEL KAPRIELIAN  
Secretary  
HEATHER E. ROWE  
Director

**Awarding Authority:** Town of Arlington  
**Contract Number:** 14-31 **City/Town:** ARLINGTON  
**Description of Work:** Furnish all labor, materials, equipment and supervision necessary to upgrade Traffic signals in various locations.  
**Job Location:** Various

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Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the "Wage Request Number" on all pages of this schedule.
- An Awarding Authority must request an updated wage schedule from the Department of Labor Standards ("DLS") if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule. For CM AT RISK projects (bid pursuant to G.L. c.149A), the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work must be within 90-days of the wage schedule issuance date.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. The wage schedule shall be made a part of the contract awarded for the project. The wage schedule must be posted in a conspicuous place at the work site for the life of the project in accordance with M.G.L. c. 149 § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project whether they are employed by the prime contractor, a filed sub-bidder, or any sub-contractor.
- All apprentices working on the project are required to be registered with the Massachusetts Division of Apprentice Standards (DAS). Apprentice must keep his/her apprentice identification card on his/her person during all work hours on the project. An apprentice registered with DAS may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **If an apprentice rate is not listed on the prevailing wage schedule for the trade in which an apprentice is registered with the DAS, the apprentice must be paid the journeyworker's rate for the trade.**
- The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule. Awarding authorities are required to request these updates no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor. For multi-year CM AT RISK projects, awarding authority must request an annual update no later than two weeks before the anniversary date, determined as the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to permit procurement of construction services. Contractors are required to obtain the wage schedules from awarding authorities, and to pay no less than these rates to covered workers. The annual update requirement is not applicable to 27F "rental of equipment" contracts.
- Every contractor or subcontractor which performs construction work on the project is required to submit weekly payroll reports and a Statement of Compliance directly to the awarding authority by mail or email and keep them on file for three years. Each weekly payroll report must contain: the employee's name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. A sample of a payroll reporting form may be obtained at <http://www.mass.gov/dols/pw>.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may report the violation to the Fair Labor Division of the office of the Attorney General at (617) 727-3465.
- Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and criminal penalties.

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
<b>Construction</b>						
(2 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	08/01/2014	\$32.40	\$9.91	\$8.80	\$0.00	\$51.11
	12/01/2014	\$32.40	\$9.91	\$9.33	\$0.00	\$51.64
	06/01/2015	\$32.75	\$9.91	\$9.33	\$0.00	\$51.99
	08/01/2015	\$32.75	\$10.41	\$9.33	\$0.00	\$52.49
	12/01/2015	\$32.75	\$10.41	\$10.08	\$0.00	\$53.24
	06/01/2016	\$33.25	\$10.41	\$10.08	\$0.00	\$53.74
	08/01/2016	\$33.25	\$10.91	\$10.08	\$0.00	\$54.24
	12/01/2016	\$33.25	\$10.91	\$10.89	\$0.00	\$55.05
(3 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	08/01/2014	\$32.47	\$9.91	\$8.80	\$0.00	\$51.18
	12/01/2014	\$32.47	\$9.91	\$9.33	\$0.00	\$51.71
	06/01/2015	\$32.82	\$9.91	\$9.33	\$0.00	\$52.06
	08/01/2015	\$32.82	\$10.41	\$9.33	\$0.00	\$52.56
	12/01/2015	\$32.82	\$10.41	\$10.08	\$0.00	\$53.31
	06/01/2016	\$33.32	\$10.41	\$10.08	\$0.00	\$53.81
	08/01/2016	\$33.32	\$10.91	\$10.08	\$0.00	\$54.31
	12/01/2016	\$33.32	\$10.91	\$10.89	\$0.00	\$55.12
(4 & 5 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	08/01/2014	\$32.59	\$9.91	\$8.80	\$0.00	\$51.30
	12/01/2014	\$32.59	\$9.91	\$9.33	\$0.00	\$51.83
	06/01/2015	\$32.94	\$9.91	\$9.33	\$0.00	\$52.18
	08/01/2015	\$32.94	\$10.41	\$9.33	\$0.00	\$52.68
	12/01/2015	\$32.94	\$10.41	\$10.08	\$0.00	\$53.43
	06/01/2016	\$33.44	\$10.41	\$10.08	\$0.00	\$53.93
	08/01/2016	\$33.44	\$10.91	\$10.08	\$0.00	\$54.43
	12/01/2016	\$33.44	\$10.91	\$10.89	\$0.00	\$55.24
ADS/SUBMERSIBLE PILOT <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2014	\$87.36	\$9.80	\$18.17	\$0.00	\$115.33
	08/01/2015	\$90.51	\$9.80	\$18.17	\$0.00	\$118.48
AIR TRACK OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2014	\$34.85	\$7.30	\$12.70	\$0.00	\$54.85
	12/01/2014	\$35.60	\$7.30	\$12.70	\$0.00	\$55.60
	06/01/2015	\$36.35	\$7.30	\$12.70	\$0.00	\$56.35
	12/01/2015	\$37.10	\$7.30	\$12.70	\$0.00	\$57.10
	06/01/2016	\$37.85	\$7.30	\$12.70	\$0.00	\$57.85
	12/01/2016	\$38.85	\$7.30	\$12.70	\$0.00	\$58.85
For apprentice rates see "Apprentice- LABORER"						
ASBESTOS REMOVER - PIPE / MECH. EQUIPT. <i>HEAT &amp; FROST INSULATORS LOCAL 6 (BOSTON)</i>	06/01/2014	\$31.58	\$10.40	\$5.95	\$0.00	\$47.93
	12/01/2014	\$32.48	\$10.40	\$5.95	\$0.00	\$48.83
	06/01/2015	\$33.43	\$10.40	\$5.95	\$0.00	\$49.78
	12/01/2015	\$34.38	\$10.40	\$5.95	\$0.00	\$50.73
ASPHALT RAKER <i>LABORERS - ZONE 1</i>	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.49	\$10.00	\$14.18	\$0.00	\$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.49	\$10.00	\$14.18	\$0.00	\$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 1</i>	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 1</i>	06/01/2014	\$34.85	\$7.30	\$12.70	\$0.00	\$54.85
	12/01/2014	\$35.60	\$7.30	\$12.70	\$0.00	\$55.60
	06/01/2015	\$36.35	\$7.30	\$12.70	\$0.00	\$56.35
	12/01/2015	\$37.10	\$7.30	\$12.70	\$0.00	\$57.10
	06/01/2016	\$37.85	\$7.30	\$12.70	\$0.00	\$57.85
	12/01/2016	\$38.85	\$7.30	\$12.70	\$0.00	\$58.85
For apprentice rates see "Apprentice- LABORER"						
BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	01/01/2010	\$37.70	\$6.97	\$11.18	\$0.00	\$55.85

**Apprentice - BOILERMAKER - Local 29**

**Effective Date - 01/01/2010**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$24.51	\$6.97	\$11.18	\$0.00	\$42.66
2	65	\$24.51	\$6.97	\$11.18	\$0.00	\$42.66
3	70	\$26.39	\$6.97	\$11.18	\$0.00	\$44.54
4	75	\$28.28	\$6.97	\$11.18	\$0.00	\$46.43
5	80	\$30.16	\$6.97	\$11.18	\$0.00	\$48.31
6	85	\$32.05	\$6.97	\$11.18	\$0.00	\$50.20
7	90	\$33.93	\$6.97	\$11.18	\$0.00	\$52.08
8	95	\$35.82	\$6.97	\$11.18	\$0.00	\$53.97

**Notes:**

**Apprentice to Journeyworker Ratio:1:5**

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) <i>BRICKLAYERS LOCAL 3 (BOSTON)</i>	08/01/2014	\$48.96	\$10.18	\$18.22	\$0.00	\$77.36
	02/01/2015	\$49.52	\$10.18	\$18.22	\$0.00	\$77.92
	08/01/2015	\$50.42	\$10.18	\$18.29	\$0.00	\$78.89
	02/01/2016	\$50.99	\$10.18	\$18.29	\$0.00	\$79.46
	08/01/2016	\$51.89	\$10.18	\$18.37	\$0.00	\$80.44
	02/01/2017	\$52.46	\$10.18	\$18.37	\$0.00	\$81.01

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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**Apprentice - BRICK/PLASTER/CEMENT MASON - Local 3 Boston**

**Effective Date - 08/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.48	\$10.18	\$18.22	\$0.00	\$52.88
2	60	\$29.38	\$10.18	\$18.22	\$0.00	\$57.78
3	70	\$34.27	\$10.18	\$18.22	\$0.00	\$62.67
4	80	\$39.17	\$10.18	\$18.22	\$0.00	\$67.57
5	90	\$44.06	\$10.18	\$18.22	\$0.00	\$72.46

**Effective Date - 02/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.76	\$10.18	\$18.22	\$0.00	\$53.16
2	60	\$29.71	\$10.18	\$18.22	\$0.00	\$58.11
3	70	\$34.66	\$10.18	\$18.22	\$0.00	\$63.06
4	80	\$39.62	\$10.18	\$18.22	\$0.00	\$68.02
5	90	\$44.57	\$10.18	\$18.22	\$0.00	\$72.97

**Notes:**

**Apprentice to Journeyworker Ratio:1:5**

BULLDOZER/GRADER/SCRAPER <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
CAISSON & UNDERPINNING BOTTOM MAN <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2014	\$35.20	\$7.30	\$12.90	\$0.00	\$55.40
	12/01/2014	\$35.95	\$7.30	\$12.90	\$0.00	\$56.15
	06/01/2015	\$36.70	\$7.30	\$12.90	\$0.00	\$56.90
	12/01/2015	\$37.45	\$7.30	\$12.90	\$0.00	\$57.65
	06/01/2016	\$38.20	\$7.30	\$12.90	\$0.00	\$58.40
	12/01/2016	\$39.20	\$7.30	\$12.90	\$0.00	\$59.40
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2014	\$34.05	\$7.30	\$12.90	\$0.00	\$54.25
	12/01/2014	\$34.80	\$7.30	\$12.90	\$0.00	\$55.00
	06/01/2015	\$35.55	\$7.30	\$12.90	\$0.00	\$55.75
	12/01/2015	\$36.30	\$7.30	\$12.90	\$0.00	\$56.50
	06/01/2016	\$37.05	\$7.30	\$12.90	\$0.00	\$57.25
	12/01/2016	\$38.05	\$7.30	\$12.90	\$0.00	\$58.25
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING TOP MAN <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2014	\$34.05	\$7.30	\$12.90	\$0.00	\$54.25
	12/01/2014	\$34.80	\$7.30	\$12.90	\$0.00	\$55.00
	06/01/2015	\$35.55	\$7.30	\$12.90	\$0.00	\$55.75
	12/01/2015	\$36.30	\$7.30	\$12.90	\$0.00	\$56.50
	06/01/2016	\$37.05	\$7.30	\$12.90	\$0.00	\$57.25
	12/01/2016	\$38.05	\$7.30	\$12.90	\$0.00	\$58.25
For apprentice rates see "Apprentice- LABORER"						



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CARBIDE CORE DRILL OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35

For apprentice rates see "Apprentice- LABORER"

CARPENTER <i>CARPENTERS -ZONE 2 (Eastern Massachusetts)</i>	03/01/2014	\$34.78	\$9.80	\$15.91	\$0.00	\$60.49
	09/01/2014	\$35.55	\$9.80	\$15.91	\$0.00	\$61.26
	03/01/2015	\$36.32	\$9.80	\$15.91	\$0.00	\$62.03

#### Apprentice - CARPENTER - Zone 2 Eastern MA

Effective Date - 03/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.39	\$9.80	\$1.57	\$0.00	\$28.76
2	60	\$20.87	\$9.80	\$1.57	\$0.00	\$32.24
3	70	\$24.35	\$9.80	\$11.20	\$0.00	\$45.35
4	75	\$26.09	\$9.80	\$11.20	\$0.00	\$47.09
5	80	\$27.82	\$9.80	\$12.77	\$0.00	\$50.39
6	80	\$27.82	\$9.80	\$12.77	\$0.00	\$50.39
7	90	\$31.30	\$9.80	\$14.34	\$0.00	\$55.44
8	90	\$31.30	\$9.80	\$14.34	\$0.00	\$55.44

Effective Date - 09/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.78	\$9.80	\$1.57	\$0.00	\$29.15
2	60	\$21.33	\$9.80	\$1.57	\$0.00	\$32.70
3	70	\$24.89	\$9.80	\$11.20	\$0.00	\$45.89
4	75	\$26.66	\$9.80	\$11.20	\$0.00	\$47.66
5	80	\$28.44	\$9.80	\$12.77	\$0.00	\$51.01
6	80	\$28.44	\$9.80	\$12.77	\$0.00	\$51.01
7	90	\$32.00	\$9.80	\$14.34	\$0.00	\$56.14
8	90	\$32.00	\$9.80	\$14.34	\$0.00	\$56.14

Notes:

Apprentice to Journeyworker Ratio:1:5

CEMENT MASONRY/PLASTERING <i>BRICKLAYERS LOCAL 3 (BOSTON)</i>	07/01/2014	\$43.77	\$10.90	\$18.71	\$1.30	\$74.68
	01/01/2015	\$44.69	\$10.90	\$18.71	\$1.30	\$75.60
	07/01/2015	\$45.29	\$10.90	\$18.71	\$1.30	\$76.20
	01/01/2016	\$46.21	\$10.90	\$18.71	\$1.30	\$77.12

**Classification**
**Effective Date**
**Base Wage**
**Health**
**Pension**
**Supplemental  
Unemployment**
**Total Rate**
**Apprentice - CEMENT MASONRY/PLASTERING - Eastern Mass (Boston)**
**Effective Date - 07/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.89	\$10.90	\$12.21	\$1.30	\$46.30
2	60	\$26.26	\$10.90	\$13.71	\$1.30	\$52.17
3	65	\$28.45	\$10.90	\$14.71	\$1.30	\$55.36
4	70	\$30.64	\$10.90	\$15.71	\$1.30	\$58.55
5	75	\$32.83	\$10.90	\$16.71	\$1.30	\$61.74
6	80	\$35.02	\$10.90	\$17.71	\$1.30	\$64.93
7	90	\$39.39	\$10.90	\$18.71	\$1.30	\$70.30

**Effective Date - 01/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.35	\$10.90	\$12.21	\$1.30	\$46.76
2	60	\$26.81	\$10.90	\$13.71	\$1.30	\$52.72
3	65	\$29.05	\$10.90	\$14.71	\$1.30	\$55.96
4	70	\$31.28	\$10.90	\$15.71	\$1.30	\$59.19
5	75	\$33.52	\$10.90	\$16.71	\$1.30	\$62.43
6	80	\$35.75	\$10.90	\$17.71	\$1.30	\$65.66
7	90	\$40.22	\$10.90	\$18.71	\$1.30	\$71.13

**Notes:**

Steps 3,4 are 500 hrs. All other steps are 1,000 hrs.

**Apprentice to Journeyworker Ratio:1:3**

CHAIN SAW OPERATOR	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
LABORERS - ZONE 1	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES	12/01/2013	\$41.49	\$10.00	\$14.18	\$0.00	\$65.67
OPERATING ENGINEERS LOCAL 4	For apprentice rates see "Apprentice- OPERATING ENGINEERS"					
COMPRESSOR OPERATOR	12/01/2013	\$28.11	\$10.00	\$14.18	\$0.00	\$52.29
OPERATING ENGINEERS LOCAL 4	For apprentice rates see "Apprentice- OPERATING ENGINEERS"					
DELEADER (BRIDGE)	07/01/2014	\$46.76	\$7.85	\$16.10	\$0.00	\$70.71
PAINTERS LOCAL 35 - ZONE 2	01/01/2015	\$47.66	\$7.85	\$16.10	\$0.00	\$71.61
	07/01/2015	\$48.56	\$7.85	\$16.10	\$0.00	\$72.51
	01/01/2016	\$49.51	\$7.85	\$16.10	\$0.00	\$73.46
	07/01/2016	\$50.46	\$7.85	\$16.10	\$0.00	\$74.41
	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36

**Apprentice - PAINTER Local 35 - BRIDGES/TANKS**

**Effective Date - 07/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.38	\$7.85	\$0.00	\$0.00	\$31.23
2	55	\$25.72	\$7.85	\$3.66	\$0.00	\$37.23
3	60	\$28.06	\$7.85	\$3.99	\$0.00	\$39.90
4	65	\$30.39	\$7.85	\$4.32	\$0.00	\$42.56
5	70	\$32.73	\$7.85	\$14.11	\$0.00	\$54.69
6	75	\$35.07	\$7.85	\$14.44	\$0.00	\$57.36
7	80	\$37.41	\$7.85	\$14.77	\$0.00	\$60.03
8	90	\$42.08	\$7.85	\$15.44	\$0.00	\$65.37

**Effective Date - 01/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.83	\$7.85	\$0.00	\$0.00	\$31.68
2	55	\$26.21	\$7.85	\$3.66	\$0.00	\$37.72
3	60	\$28.60	\$7.85	\$3.99	\$0.00	\$40.44
4	65	\$30.98	\$7.85	\$4.32	\$0.00	\$43.15
5	70	\$33.36	\$7.85	\$14.11	\$0.00	\$55.32
6	75	\$35.75	\$7.85	\$14.44	\$0.00	\$58.04
7	80	\$38.13	\$7.85	\$14.77	\$0.00	\$60.75
8	90	\$42.89	\$7.85	\$15.44	\$0.00	\$66.18

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

DEMO: ADZEMAN	06/01/2014	\$34.25	\$7.30	\$12.70	\$0.00	\$54.25
LABORERS - ZONE 1	12/01/2014	\$35.00	\$7.30	\$12.70	\$0.00	\$55.00
	06/01/2015	\$35.75	\$7.30	\$12.70	\$0.00	\$55.75
	12/01/2015	\$36.50	\$7.30	\$12.70	\$0.00	\$56.50
For apprentice rates see "Apprentice- LABORER"						
DEMO: BACKHOE/LOADER/HAMMER OPERATOR	06/01/2014	\$35.25	\$7.30	\$12.70	\$0.00	\$55.25
LABORERS - ZONE 1	12/01/2014	\$36.00	\$7.30	\$12.70	\$0.00	\$56.00
	06/01/2015	\$36.75	\$7.30	\$12.70	\$0.00	\$56.75
	12/01/2015	\$37.50	\$7.30	\$12.70	\$0.00	\$57.50
For apprentice rates see "Apprentice- LABORER"						
DEMO: BURNERS	06/01/2014	\$35.00	\$7.30	\$12.70	\$0.00	\$55.00
LABORERS - ZONE 1	12/01/2014	\$35.75	\$7.30	\$12.70	\$0.00	\$55.75
	06/01/2015	\$36.50	\$7.30	\$12.70	\$0.00	\$56.50
	12/01/2015	\$37.25	\$7.30	\$12.70	\$0.00	\$57.25
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DEMO: CONCRETE CUTTER/SAWYER <i>LABORERS - ZONE 1</i>	06/01/2014	\$35.25	\$7.30	\$12.70	\$0.00	\$55.25
	12/01/2014	\$36.00	\$7.30	\$12.70	\$0.00	\$56.00
	06/01/2015	\$36.75	\$7.30	\$12.70	\$0.00	\$56.75
	12/01/2015	\$37.50	\$7.30	\$12.70	\$0.00	\$57.50
For apprentice rates see "Apprentice- LABORER"						
DEMO: JACKHAMMER OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2014	\$35.00	\$7.30	\$12.70	\$0.00	\$55.00
	12/01/2014	\$35.75	\$7.30	\$12.70	\$0.00	\$55.75
	06/01/2015	\$36.50	\$7.30	\$12.70	\$0.00	\$56.50
	12/01/2015	\$37.25	\$7.30	\$12.70	\$0.00	\$57.25
For apprentice rates see "Apprentice- LABORER"						
DEMO: WRECKING LABORER <i>LABORERS - ZONE 1</i>	06/01/2014	\$34.25	\$7.30	\$12.70	\$0.00	\$54.25
	12/01/2014	\$35.00	\$7.30	\$12.70	\$0.00	\$55.00
	06/01/2015	\$35.75	\$7.30	\$12.70	\$0.00	\$55.75
	12/01/2015	\$36.50	\$7.30	\$12.70	\$0.00	\$56.50
For apprentice rates see "Apprentice- LABORER"						
DIRECTIONAL DRILL MACHINE OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DIVER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2014	\$58.24	\$9.80	\$18.17	\$0.00	\$86.21
	08/01/2015	\$60.34	\$9.80	\$18.17	\$0.00	\$88.31
DIVER TENDER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2014	\$41.60	\$9.80	\$18.17	\$0.00	\$69.57
	08/01/2015	\$43.10	\$9.80	\$18.17	\$0.00	\$71.07
DIVER TENDER (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2014	\$62.40	\$9.80	\$18.17	\$0.00	\$90.37
	08/01/2015	\$64.65	\$9.80	\$18.17	\$0.00	\$92.62
DIVER/SLURRY (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2014	\$87.36	\$9.80	\$18.17	\$0.00	\$115.33
	08/01/2015	\$90.51	\$9.80	\$18.17	\$0.00	\$118.48
DRAWBRIDGE OPERATOR (Construction) <i>ELECTRICIANS LOCAL 103</i>	03/01/2014	\$44.45	\$13.00	\$14.68	\$0.00	\$72.13
	09/01/2014	\$45.12	\$13.00	\$14.70	\$0.00	\$72.82
	03/01/2015	\$45.84	\$13.00	\$14.72	\$0.00	\$73.56
	09/01/2015	\$46.80	\$13.00	\$14.75	\$0.00	\$74.55
	03/01/2016	\$47.75	\$13.00	\$14.78	\$0.00	\$75.53
For apprentice rates see "Apprentice- ELECTRICIAN"						
ELECTRICIAN <i>ELECTRICIANS LOCAL 103</i>	03/01/2014	\$44.45	\$13.00	\$14.68	\$0.00	\$72.13
	09/01/2014	\$45.12	\$13.00	\$14.70	\$0.00	\$72.82
	03/01/2015	\$45.84	\$13.00	\$14.72	\$0.00	\$73.56
	09/01/2015	\$46.80	\$13.00	\$14.75	\$0.00	\$74.55
	03/01/2016	\$47.75	\$13.00	\$14.78	\$0.00	\$75.53

**Classification**

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

**Apprentice - ELECTRICIAN - Local 103**
**Effective Date - 03/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.78	\$13.00	\$0.53	\$0.00	\$31.31
2	40	\$17.78	\$13.00	\$0.53	\$0.00	\$31.31
3	45	\$20.00	\$13.00	\$11.04	\$0.00	\$44.04
4	45	\$20.00	\$13.00	\$11.04	\$0.00	\$44.04
5	50	\$22.23	\$13.00	\$11.37	\$0.00	\$46.60
6	55	\$24.45	\$13.00	\$11.70	\$0.00	\$49.15
7	60	\$26.67	\$13.00	\$12.03	\$0.00	\$51.70
8	65	\$28.89	\$13.00	\$12.37	\$0.00	\$54.26
9	70	\$31.12	\$13.00	\$12.69	\$0.00	\$56.81
10	75	\$33.34	\$13.00	\$13.03	\$0.00	\$59.37

**Effective Date - 09/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$18.05	\$13.00	\$0.54	\$0.00	\$31.59
2	40	\$18.05	\$13.00	\$0.54	\$0.00	\$31.59
3	45	\$20.30	\$13.00	\$11.05	\$0.00	\$44.35
4	45	\$20.30	\$13.00	\$11.05	\$0.00	\$44.35
5	50	\$22.56	\$13.00	\$11.38	\$0.00	\$46.94
6	55	\$24.82	\$13.00	\$11.71	\$0.00	\$49.53
7	60	\$27.07	\$13.00	\$12.04	\$0.00	\$52.11
8	65	\$29.33	\$13.00	\$12.38	\$0.00	\$54.71
9	70	\$31.58	\$13.00	\$12.71	\$0.00	\$57.29
10	75	\$33.84	\$13.00	\$13.05	\$0.00	\$59.89

**Notes: :**

App Prior 1/1/03; 30/35/40/45/50/55/65/70/75/80

**Apprentice to Journeyworker Ratio:2:3\*\*\***

ELEVATOR CONSTRUCTOR	01/01/2012	\$52.45	\$8.78	\$6.96	\$0.00	\$68.19
ELEVATOR CONSTRUCTORS LOCAL 4						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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**Apprentice - ELEVATOR CONSTRUCTOR - Local 4**

**Effective Date - 01/01/2012**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.23	\$8.78	\$0.00	\$0.00	\$35.01
2	55	\$28.85	\$8.78	\$6.96	\$0.00	\$44.59
3	65	\$34.09	\$8.78	\$6.96	\$0.00	\$49.83
4	70	\$36.72	\$8.78	\$6.96	\$0.00	\$52.46
5	80	\$41.96	\$8.78	\$6.96	\$0.00	\$57.70

**Notes:**

Steps 1-2 are 6 mos.; Steps 3-5 are 1 year

**Apprentice to Journeyworker Ratio:1:1**

ELEVATOR CONSTRUCTOR HELPER <i>ELEVATOR CONSTRUCTORS LOCAL 4</i>	01/01/2012	\$38.59	\$8.78	\$6.96	\$0.00	\$54.33
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"						
FENCE & GUARD RAIL ERECTOR <i>LABORERS - ZONE 1</i>	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2014	\$38.87	\$10.00	\$14.18	\$0.00	\$63.05
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2014	\$40.29	\$10.00	\$14.18	\$0.00	\$64.47
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2014	\$20.92	\$10.00	\$14.18	\$0.00	\$45.10
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIRE ALARM INSTALLER <i>ELECTRICIANS LOCAL 103</i>	03/01/2014	\$44.45	\$13.00	\$14.68	\$0.00	\$72.13
	09/01/2014	\$45.12	\$13.00	\$14.70	\$0.00	\$72.82
	03/01/2015	\$45.84	\$13.00	\$14.72	\$0.00	\$73.56
	09/01/2015	\$46.80	\$13.00	\$14.75	\$0.00	\$74.55
	03/01/2016	\$47.75	\$13.00	\$14.78	\$0.00	\$75.53
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIRE ALARM REPAIR / MAINTENANCE / COMMISSIONING <i>ELECTRICIANS LOCAL 103</i>	03/01/2014	\$33.44	\$13.00	\$13.03	\$0.00	\$59.47
	09/01/2014	\$33.84	\$13.00	\$13.05	\$0.00	\$59.89
	03/01/2015	\$34.38	\$13.00	\$13.06	\$0.00	\$60.44
	09/01/2015	\$35.10	\$13.00	\$13.08	\$0.00	\$61.18
	03/01/2016	\$35.81	\$13.00	\$13.10	\$0.00	\$61.91
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"						
FIREMAN (ASST. ENGINEER) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$33.76	\$10.00	\$14.18	\$0.00	\$57.94
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FLAGGER & SIGNALER <i>LABORERS - ZONE 1</i>	06/01/2014	\$20.50	\$7.30	\$12.70	\$0.00	\$40.50
	12/01/2014	\$20.50	\$7.30	\$12.70	\$0.00	\$40.50
	06/01/2015	\$20.50	\$7.30	\$12.70	\$0.00	\$40.50
	12/01/2015	\$20.50	\$7.30	\$12.70	\$0.00	\$40.50
	06/01/2016	\$20.50	\$7.30	\$12.70	\$0.00	\$40.50
	12/01/2016	\$20.50	\$7.30	\$12.70	\$0.00	\$40.50

For apprentice rates see "Apprentice- LABORER"

FLOORCOVERER <i>FLOORCOVERERS LOCAL 2168 ZONE 1</i>	03/01/2014	\$39.87	\$9.80	\$16.96	\$0.00	\$66.63
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**Apprentice - FLOORCOVERER - Local 2168 Zone 1**

**Effective Date -** 03/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.94	\$9.80	\$1.79	\$0.00	\$31.53
2	55	\$21.93	\$9.80	\$1.79	\$0.00	\$33.52
3	60	\$23.92	\$9.80	\$11.59	\$0.00	\$45.31
4	65	\$25.92	\$9.80	\$11.59	\$0.00	\$47.31
5	70	\$27.91	\$9.80	\$13.38	\$0.00	\$51.09
6	75	\$29.90	\$9.80	\$13.38	\$0.00	\$53.08
7	80	\$31.90	\$9.80	\$15.17	\$0.00	\$56.87
8	85	\$33.89	\$9.80	\$15.17	\$0.00	\$58.86

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

FORK LIFT/CHERRY PICKER <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.49	\$10.00	\$14.18	\$0.00	\$64.67
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

GENERATOR/LIGHTING PLANT/HEATERS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$28.11	\$10.00	\$14.18	\$0.00	\$52.29
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) <i>GLAZIERS LOCAL 35 (ZONE 2)</i>	07/01/2014	\$36.26	\$7.85	\$16.10	\$0.00	\$60.21
	01/01/2015	\$37.16	\$7.85	\$16.10	\$0.00	\$61.11
	07/01/2015	\$38.06	\$7.85	\$16.10	\$0.00	\$62.01
	01/01/2016	\$39.01	\$7.85	\$16.10	\$0.00	\$62.96
	07/01/2016	\$39.96	\$7.85	\$16.10	\$0.00	\$63.91
	01/01/2017	\$40.91	\$7.85	\$16.10	\$0.00	\$64.86

**Classification**
**Effective Date**
**Base Wage**
**Health**
**Pension**
**Supplemental  
Unemployment**
**Total Rate**
**Apprentice - GLAZIER - Local 35 Zone 2**
**Effective Date - 07/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.13	\$7.85	\$0.00	\$0.00	\$25.98
2	55	\$19.94	\$7.85	\$3.66	\$0.00	\$31.45
3	60	\$21.76	\$7.85	\$3.99	\$0.00	\$33.60
4	65	\$23.57	\$7.85	\$4.32	\$0.00	\$35.74
5	70	\$25.38	\$7.85	\$14.11	\$0.00	\$47.34
6	75	\$27.20	\$7.85	\$14.44	\$0.00	\$49.49
7	80	\$29.01	\$7.85	\$14.77	\$0.00	\$51.63
8	90	\$32.63	\$7.85	\$15.44	\$0.00	\$55.92

**Effective Date - 01/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.58	\$7.85	\$0.00	\$0.00	\$26.43
2	55	\$20.44	\$7.85	\$3.66	\$0.00	\$31.95
3	60	\$22.30	\$7.85	\$3.99	\$0.00	\$34.14
4	65	\$24.15	\$7.85	\$4.32	\$0.00	\$36.32
5	70	\$26.01	\$7.85	\$14.11	\$0.00	\$47.97
6	75	\$27.87	\$7.85	\$14.44	\$0.00	\$50.16
7	80	\$29.73	\$7.85	\$14.77	\$0.00	\$52.35
8	90	\$33.44	\$7.85	\$15.44	\$0.00	\$56.73

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**
**HOISTING ENGINEER/CRANES/GRADALLS**
*OPERATING ENGINEERS LOCAL 4*
**12/01/2013**
**\$40.49**
**\$10.00**
**\$14.18**
**\$0.00**
**\$64.67**



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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**Apprentice - OPERATING ENGINEERS - Local 4**

**Effective Date - 12/01/2013**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$22.27	\$10.00	\$0.00	\$0.00	\$32.27
2	60	\$24.29	\$10.00	\$14.18	\$0.00	\$48.47
3	65	\$26.32	\$10.00	\$14.18	\$0.00	\$50.50
4	70	\$28.34	\$10.00	\$14.18	\$0.00	\$52.52
5	75	\$30.37	\$10.00	\$14.18	\$0.00	\$54.55
6	80	\$32.39	\$10.00	\$14.18	\$0.00	\$56.57
7	85	\$34.42	\$10.00	\$14.18	\$0.00	\$58.60
8	90	\$36.44	\$10.00	\$14.18	\$0.00	\$60.62

**Notes:**

**Apprentice to Journeyworker Ratio:1:6**

HVAC (DUCTWORK) <i>SHEETMETAL WORKERS LOCAL 17 - A</i>	08/01/2014	\$42.79	\$9.82	\$20.54	\$2.19	\$75.34
	02/01/2015	\$43.69	\$9.82	\$20.54	\$2.19	\$76.24
	08/01/2015	\$44.69	\$9.82	\$20.54	\$2.19	\$77.24
	02/01/2016	\$45.69	\$9.82	\$20.54	\$2.19	\$78.24
	08/01/2016	\$46.84	\$9.82	\$20.54	\$2.19	\$79.39
	02/01/2017	\$47.94	\$9.82	\$20.54	\$2.19	\$80.49
	08/01/2017	\$49.04	\$9.82	\$20.54	\$2.19	\$81.59
	02/01/2018	\$50.19	\$9.82	\$20.54	\$2.19	\$82.74
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (ELECTRICAL CONTROLS) <i>ELECTRICIANS LOCAL 103</i>	03/01/2014	\$44.45	\$13.00	\$14.68	\$0.00	\$72.13
	09/01/2014	\$45.12	\$13.00	\$14.70	\$0.00	\$72.82
	03/01/2015	\$45.84	\$13.00	\$14.72	\$0.00	\$73.56
	09/01/2015	\$46.80	\$13.00	\$14.75	\$0.00	\$74.55
	03/01/2016	\$47.75	\$13.00	\$14.78	\$0.00	\$75.53
For apprentice rates see "Apprentice- ELECTRICIAN"						
HVAC (TESTING AND BALANCING - AIR) <i>SHEETMETAL WORKERS LOCAL 17 - A</i>	08/01/2014	\$42.79	\$9.82	\$20.54	\$2.19	\$75.34
	02/01/2015	\$43.69	\$9.82	\$20.54	\$2.19	\$76.24
	08/01/2015	\$44.69	\$9.82	\$20.54	\$2.19	\$77.24
	02/01/2016	\$45.69	\$9.82	\$20.54	\$2.19	\$78.24
	08/01/2016	\$46.84	\$9.82	\$20.54	\$2.19	\$79.39
	02/01/2017	\$47.94	\$9.82	\$20.54	\$2.19	\$80.49
	08/01/2017	\$49.04	\$9.82	\$20.54	\$2.19	\$81.59
	02/01/2018	\$50.19	\$9.82	\$20.54	\$2.19	\$82.74
For apprentice rates see "Apprentice- SHEET METAL WORKER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
HVAC (TESTING AND BALANCING -WATER) <i>PIPEFITTERS LOCAL 537</i>	03/01/2014	\$48.19	\$9.20	\$16.14	\$0.00	\$73.53
	09/01/2014	\$49.19	\$9.20	\$16.14	\$0.00	\$74.53
	03/01/2015	\$50.19	\$9.20	\$16.14	\$0.00	\$75.53
	09/01/2015	\$51.19	\$9.20	\$16.14	\$0.00	\$76.53
	03/01/2016	\$52.19	\$9.20	\$16.14	\$0.00	\$77.53
	09/01/2016	\$53.19	\$9.20	\$16.14	\$0.00	\$78.53
	03/01/2017	\$54.19	\$9.20	\$16.14	\$0.00	\$79.53
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HVAC MECHANIC <i>PIPEFITTERS LOCAL 537</i>	03/01/2014	\$48.19	\$9.20	\$16.14	\$0.00	\$73.53
	09/01/2014	\$49.19	\$9.20	\$16.14	\$0.00	\$74.53
	03/01/2015	\$50.19	\$9.20	\$16.14	\$0.00	\$75.53
	09/01/2015	\$51.19	\$9.20	\$16.14	\$0.00	\$76.53
	03/01/2016	\$52.19	\$9.20	\$16.14	\$0.00	\$77.53
	09/01/2016	\$53.19	\$9.20	\$16.14	\$0.00	\$78.53
	03/01/2017	\$54.19	\$9.20	\$16.14	\$0.00	\$79.53
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HYDRAULIC DRILLS <i>LABORERS - ZONE 1</i>	06/01/2014	\$34.85	\$7.30	\$12.70	\$0.00	\$54.85
	12/01/2014	\$35.60	\$7.30	\$12.70	\$0.00	\$55.60
	06/01/2015	\$36.35	\$7.30	\$12.70	\$0.00	\$56.35
	12/01/2015	\$37.10	\$7.30	\$12.70	\$0.00	\$57.10
	06/01/2016	\$37.85	\$7.30	\$12.70	\$0.00	\$57.85
	12/01/2016	\$38.85	\$7.30	\$12.70	\$0.00	\$58.85
For apprentice rates see "Apprentice- LABORER"						
INSULATOR (PIPES & TANKS) <i>HEAT &amp; FROST INSULATORS LOCAL 6 (BOSTON)</i>	09/01/2013	\$42.11	\$10.95	\$12.10	\$0.00	\$65.16
	09/01/2014	\$44.11	\$10.95	\$12.10	\$0.00	\$67.16

**Apprentice - ASBESTOS INSULATOR (Pipes & Tanks) - Local 6 Boston**

**Effective Date -** 09/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.06	\$10.95	\$9.00	\$0.00	\$41.01
2	60	\$25.27	\$10.95	\$9.62	\$0.00	\$45.84
3	70	\$29.48	\$10.95	\$10.24	\$0.00	\$50.67
4	80	\$33.69	\$10.95	\$10.86	\$0.00	\$55.50

**Effective Date -** 09/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.06	\$10.95	\$9.00	\$0.00	\$42.01
2	60	\$26.47	\$10.95	\$9.62	\$0.00	\$47.04
3	70	\$30.88	\$10.95	\$10.24	\$0.00	\$52.07
4	80	\$35.29	\$10.95	\$10.86	\$0.00	\$57.10

**Notes:**

Steps are 1 year

**Apprentice to Journeyworker Ratio:1:4**

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
IRONWORKER/WELDER <i>IRONWORKERS LOCAL 7 (BOSTON AREA)</i>	03/16/2014	\$41.19	\$7.70	\$19.25	\$0.00	\$68.14

**Apprentice - IRONWORKER - Local 7 Boston**

**Effective Date -** 03/16/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$24.71	\$7.70	\$19.25	\$0.00	\$51.66
2	70	\$28.83	\$7.70	\$19.25	\$0.00	\$55.78
3	75	\$30.89	\$7.70	\$19.25	\$0.00	\$57.84
4	80	\$32.95	\$7.70	\$19.25	\$0.00	\$59.90
5	85	\$35.01	\$7.70	\$19.25	\$0.00	\$61.96
6	90	\$37.07	\$7.70	\$19.25	\$0.00	\$64.02

**Notes:**

\*\* Structural 1:6; Ornamental 1:4

**Apprentice to Journeyworker Ratio:\*\***

JACKHAMMER & PAVING BREAKER OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35

For apprentice rates see "Apprentice- LABORER"

LABORER <i>LABORERS - ZONE 1</i>	06/01/2014	\$34.10	\$7.30	\$12.70	\$0.00	\$54.10
	12/01/2014	\$34.85	\$7.30	\$12.70	\$0.00	\$54.85
	06/01/2015	\$35.60	\$7.30	\$12.70	\$0.00	\$55.60
	12/01/2015	\$36.35	\$7.30	\$12.70	\$0.00	\$56.35
	06/01/2016	\$37.10	\$7.30	\$12.70	\$0.00	\$57.10
	12/01/2016	\$38.10	\$7.30	\$12.70	\$0.00	\$58.10

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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**Apprentice - LABORER - Zone 1**

**Effective Date - 06/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$20.46	\$7.30	\$12.70	\$0.00	\$40.46
2	70	\$23.87	\$7.30	\$12.70	\$0.00	\$43.87
3	80	\$27.28	\$7.30	\$12.70	\$0.00	\$47.28
4	90	\$30.69	\$7.30	\$12.70	\$0.00	\$50.69

**Effective Date - 12/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$20.91	\$7.30	\$12.70	\$0.00	\$40.91
2	70	\$24.40	\$7.30	\$12.70	\$0.00	\$44.40
3	80	\$27.88	\$7.30	\$12.70	\$0.00	\$47.88
4	90	\$31.37	\$7.30	\$12.70	\$0.00	\$51.37

**Notes:**

**Apprentice to Journeyworker Ratio:1:5**

LABORER: CARPENTER TENDER	06/01/2014	\$34.10	\$7.30	\$12.70	\$0.00	\$54.10
LABORERS - ZONE 1	12/01/2014	\$34.85	\$7.30	\$12.70	\$0.00	\$54.85
	06/01/2015	\$35.60	\$7.30	\$12.70	\$0.00	\$55.60
	12/01/2015	\$36.35	\$7.30	\$12.70	\$0.00	\$56.35
	06/01/2016	\$37.10	\$7.30	\$12.70	\$0.00	\$57.10
	12/01/2016	\$38.10	\$7.30	\$12.70	\$0.00	\$58.10

For apprentice rates see "Apprentice- LABORER"

LABORER: CEMENT FINISHER TENDER	06/01/2014	\$34.10	\$7.30	\$12.70	\$0.00	\$54.10
LABORERS - ZONE 1	12/01/2014	\$34.85	\$7.30	\$12.70	\$0.00	\$54.85
	06/01/2015	\$35.60	\$7.30	\$12.70	\$0.00	\$55.60
	12/01/2015	\$36.35	\$7.30	\$12.70	\$0.00	\$56.35
	06/01/2016	\$37.10	\$7.30	\$12.70	\$0.00	\$57.10
	12/01/2016	\$38.10	\$7.30	\$12.70	\$0.00	\$58.10

For apprentice rates see "Apprentice- LABORER"

LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER	06/01/2014	\$34.25	\$7.30	\$12.70	\$0.00	\$54.25
LABORERS - ZONE 1	12/01/2014	\$35.00	\$7.30	\$12.70	\$0.00	\$55.00
	06/01/2015	\$35.75	\$7.30	\$12.70	\$0.00	\$55.75
	12/01/2015	\$36.50	\$7.30	\$12.70	\$0.00	\$56.50

For apprentice rates see "Apprentice- LABORER"

LABORER: MASON TENDER	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
LABORERS - ZONE 1	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: MULTI-TRADE TENDER <i>LABORERS - ZONE 1</i>	06/01/2014	\$34.10	\$7.30	\$12.70	\$0.00	\$54.10
	12/01/2014	\$34.85	\$7.30	\$12.70	\$0.00	\$54.85
	06/01/2015	\$35.60	\$7.30	\$12.70	\$0.00	\$55.60
	12/01/2015	\$36.35	\$7.30	\$12.70	\$0.00	\$56.35
	06/01/2016	\$37.10	\$7.30	\$12.70	\$0.00	\$57.10
	12/01/2016	\$38.10	\$7.30	\$12.70	\$0.00	\$58.10
For apprentice rates see "Apprentice- LABORER"						
LABORER: TREE REMOVER <i>LABORERS - ZONE 1</i>	06/01/2014	\$34.10	\$7.30	\$12.70	\$0.00	\$54.10
	12/01/2014	\$34.85	\$7.30	\$12.70	\$0.00	\$54.85
	06/01/2015	\$35.60	\$7.30	\$12.70	\$0.00	\$55.60
	12/01/2015	\$36.35	\$7.30	\$12.70	\$0.00	\$56.35
	06/01/2016	\$37.10	\$7.30	\$12.70	\$0.00	\$57.10
	12/01/2016	\$38.10	\$7.30	\$12.70	\$0.00	\$58.10
This classification applies to all tree work associated with the removal of standing trees, and trimming and removal of branches and limbs when the work is not done for a utility company for the purpose of operation, maintenance or repair of utility company equipment. For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
MARBLE & TILE FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE &amp; TILE</i>	08/01/2014	\$37.37	\$10.18	\$16.90	\$0.00	\$64.45
	02/01/2015	\$37.82	\$10.18	\$16.90	\$0.00	\$64.90
	08/01/2015	\$38.53	\$10.18	\$16.97	\$0.00	\$65.68
	02/01/2016	\$38.98	\$10.18	\$16.97	\$0.00	\$66.13
	08/01/2016	\$39.68	\$10.18	\$17.05	\$0.00	\$66.91
	02/01/2017	\$40.14	\$10.18	\$17.05	\$0.00	\$67.37

**Classification**

**Effective Date   Base Wage   Health   Pension   Supplemental Unemployment   Total Rate**

**Apprentice - MARBLE & TILE FINISHER - Local 3 Marble & Tile**

**Effective Date - 08/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.69	\$10.18	\$16.90	\$0.00	\$45.77
2	60	\$22.42	\$10.18	\$16.90	\$0.00	\$49.50
3	70	\$26.16	\$10.18	\$16.90	\$0.00	\$53.24
4	80	\$29.90	\$10.18	\$16.90	\$0.00	\$56.98
5	90	\$33.63	\$10.18	\$16.90	\$0.00	\$60.71

**Effective Date - 02/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.91	\$10.18	\$16.90	\$0.00	\$45.99
2	60	\$22.69	\$10.18	\$16.90	\$0.00	\$49.77
3	70	\$26.47	\$10.18	\$16.90	\$0.00	\$53.55
4	80	\$30.26	\$10.18	\$16.90	\$0.00	\$57.34
5	90	\$34.04	\$10.18	\$16.90	\$0.00	\$61.12

**Notes:**

**Apprentice to Journeyworker Ratio:1:3**

MARBLE MASONS,TILELAYERS & TERRAZZO MECH	08/01/2014	\$49.00	\$10.18	\$18.22	\$0.00	\$77.40
BRICKLAYERS LOCAL 3 - MARBLE & TILE	02/01/2015	\$49.56	\$10.18	\$18.22	\$0.00	\$77.96
	08/01/2015	\$50.46	\$10.18	\$18.29	\$0.00	\$78.93
	02/01/2016	\$51.03	\$10.18	\$18.29	\$0.00	\$79.50
	08/01/2016	\$51.93	\$10.18	\$18.37	\$0.00	\$80.48
	02/01/2017	\$52.50	\$10.18	\$18.37	\$0.00	\$81.05

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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**Apprentice - MARBLE-TILE-TERRAZZO MECHANIC - Local 3 Marble & Tile**

**Effective Date -** 08/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.50	\$10.18	\$18.22	\$0.00	\$52.90
2	60	\$29.40	\$10.18	\$18.22	\$0.00	\$57.80
3	70	\$34.30	\$10.18	\$18.22	\$0.00	\$62.70
4	80	\$39.20	\$10.18	\$18.22	\$0.00	\$67.60
5	90	\$44.10	\$10.18	\$18.22	\$0.00	\$72.50

**Effective Date -** 02/01/2015

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.78	\$10.18	\$18.22	\$0.00	\$53.18
2	60	\$29.74	\$10.18	\$18.22	\$0.00	\$58.14
3	70	\$34.69	\$10.18	\$18.22	\$0.00	\$63.09
4	80	\$39.65	\$10.18	\$18.22	\$0.00	\$68.05
5	90	\$44.60	\$10.18	\$18.22	\$0.00	\$73.00

**Notes:**

**Apprentice to Journeyworker Ratio:1:5**

MECH. SWEEPER OPERATOR (ON CONST. SITES) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MECHANICS MAINTENANCE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MILLWRIGHT (Zone 1) <i>MILLWRIGHTS LOCAL 1121 - Zone 1</i>	04/01/2014	\$35.73	\$9.80	\$16.21	\$0.00	\$61.74
	10/01/2014	\$36.68	\$9.80	\$16.21	\$0.00	\$62.69
	04/01/2015	\$37.64	\$9.80	\$16.21	\$0.00	\$63.65

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
<b>Apprentice - MILLWRIGHT - Local 1121 Zone 1</b>						
<b>Effective Date - 04/01/2014</b>						
Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$19.65	\$9.80	\$4.48	\$0.00	\$33.93
2	65	\$23.22	\$9.80	\$13.36	\$0.00	\$46.38
3	75	\$26.80	\$9.80	\$14.18	\$0.00	\$50.78
4	85	\$30.37	\$9.80	\$14.99	\$0.00	\$55.16
<b>Effective Date - 10/01/2014</b>						
Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$20.17	\$9.80	\$4.48	\$0.00	\$34.45
2	65	\$23.84	\$9.80	\$13.36	\$0.00	\$47.00
3	75	\$27.51	\$9.80	\$14.18	\$0.00	\$51.49
4	85	\$31.18	\$9.80	\$14.99	\$0.00	\$55.97
<b>Notes:</b>						
Steps are 2,000 hours						
<b>Apprentice to Journeyworker Ratio:1:5</b>						
MORTAR MIXER	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
LABORERS - ZONE 1	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
OILER (OTHER THAN TRUCK CRANES,GRADALLS)	12/01/2013	\$20.96	\$10.00	\$14.18	\$0.00	\$45.14
OPERATING ENGINEERS LOCAL 4						
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OILER (TRUCK CRANES, GRADALLS)	12/01/2013	\$24.43	\$10.00	\$14.18	\$0.00	\$48.61
OPERATING ENGINEERS LOCAL 4						
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OTHER POWER DRIVEN EQUIPMENT - CLASS II	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
OPERATING ENGINEERS LOCAL 4						
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PAINTER (BRIDGES/TANKS)	07/01/2014	\$46.76	\$7.85	\$16.10	\$0.00	\$70.71
PAINTERS LOCAL 35 - ZONE 2	01/01/2015	\$47.66	\$7.85	\$16.10	\$0.00	\$71.61
	07/01/2015	\$48.56	\$7.85	\$16.10	\$0.00	\$72.51
	01/01/2016	\$49.51	\$7.85	\$16.10	\$0.00	\$73.46
	07/01/2016	\$50.46	\$7.85	\$16.10	\$0.00	\$74.41
	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36



**Apprentice - PAINTER Local 35 - BRIDGES/TANKS****Effective Date - 07/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.38	\$7.85	\$0.00	\$0.00	\$31.23
2	55	\$25.72	\$7.85	\$3.66	\$0.00	\$37.23
3	60	\$28.06	\$7.85	\$3.99	\$0.00	\$39.90
4	65	\$30.39	\$7.85	\$4.32	\$0.00	\$42.56
5	70	\$32.73	\$7.85	\$14.11	\$0.00	\$54.69
6	75	\$35.07	\$7.85	\$14.44	\$0.00	\$57.36
7	80	\$37.41	\$7.85	\$14.77	\$0.00	\$60.03
8	90	\$42.08	\$7.85	\$15.44	\$0.00	\$65.37

**Effective Date - 01/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.83	\$7.85	\$0.00	\$0.00	\$31.68
2	55	\$26.21	\$7.85	\$3.66	\$0.00	\$37.72
3	60	\$28.60	\$7.85	\$3.99	\$0.00	\$40.44
4	65	\$30.98	\$7.85	\$4.32	\$0.00	\$43.15
5	70	\$33.36	\$7.85	\$14.11	\$0.00	\$55.32
6	75	\$35.75	\$7.85	\$14.44	\$0.00	\$58.04
7	80	\$38.13	\$7.85	\$14.77	\$0.00	\$60.75
8	90	\$42.89	\$7.85	\$15.44	\$0.00	\$66.18

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PAINTER (SPRAY OR SANDBLAST, NEW) \*

\* If 30% or more of surfaces to be painted are new construction,  
NEW paint rate shall be used. *PAINTERS LOCAL 35 - ZONE 2*

07/01/2014	\$37.66	\$7.85	\$16.10	\$0.00	\$61.61
01/01/2015	\$38.56	\$7.85	\$16.10	\$0.00	\$62.51
07/01/2015	\$39.46	\$7.85	\$16.10	\$0.00	\$63.41
01/01/2016	\$40.41	\$7.85	\$16.10	\$0.00	\$64.36
07/01/2016	\$41.36	\$7.85	\$16.10	\$0.00	\$65.31
01/01/2017	\$42.31	\$7.85	\$16.10	\$0.00	\$66.26

**Classification**

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

**Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - New**
**Effective Date - 07/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.83	\$7.85	\$0.00	\$0.00	\$26.68
2	55	\$20.71	\$7.85	\$3.66	\$0.00	\$32.22
3	60	\$22.60	\$7.85	\$3.99	\$0.00	\$34.44
4	65	\$24.48	\$7.85	\$4.32	\$0.00	\$36.65
5	70	\$26.36	\$7.85	\$14.11	\$0.00	\$48.32
6	75	\$28.25	\$7.85	\$14.44	\$0.00	\$50.54
7	80	\$30.13	\$7.85	\$14.77	\$0.00	\$52.75
8	90	\$33.89	\$7.85	\$15.44	\$0.00	\$57.18

**Effective Date - 01/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.28	\$7.85	\$0.00	\$0.00	\$27.13
2	55	\$21.21	\$7.85	\$3.66	\$0.00	\$32.72
3	60	\$23.14	\$7.85	\$3.99	\$0.00	\$34.98
4	65	\$25.06	\$7.85	\$4.32	\$0.00	\$37.23
5	70	\$26.99	\$7.85	\$14.11	\$0.00	\$48.95
6	75	\$28.92	\$7.85	\$14.44	\$0.00	\$51.21
7	80	\$30.85	\$7.85	\$14.77	\$0.00	\$53.47
8	90	\$34.70	\$7.85	\$15.44	\$0.00	\$57.99

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PAINTER (SPRAY OR SANDBLAST, REPAINT)	07/01/2014	\$35.72	\$7.85	\$16.10	\$0.00	\$59.67
PAINTERS LOCAL 35 - ZONE 2	01/01/2015	\$36.62	\$7.85	\$16.10	\$0.00	\$60.57
	07/01/2015	\$37.52	\$7.85	\$16.10	\$0.00	\$61.47
	01/01/2016	\$38.47	\$7.85	\$16.10	\$0.00	\$62.42
	07/01/2016	\$39.42	\$7.85	\$16.10	\$0.00	\$63.37
	01/01/2017	\$40.37	\$7.85	\$16.10	\$0.00	\$64.32

**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate**

**Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - Repaint**
**Effective Date - 07/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.86	\$7.85	\$0.00	\$0.00	\$25.71
2	55	\$19.65	\$7.85	\$3.66	\$0.00	\$31.16
3	60	\$21.43	\$7.85	\$3.99	\$0.00	\$33.27
4	65	\$23.22	\$7.85	\$4.32	\$0.00	\$35.39
5	70	\$25.00	\$7.85	\$14.11	\$0.00	\$46.96
6	75	\$26.79	\$7.85	\$14.44	\$0.00	\$49.08
7	80	\$28.58	\$7.85	\$14.77	\$0.00	\$51.20
8	90	\$32.15	\$7.85	\$15.44	\$0.00	\$55.44

**Effective Date - 01/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.31	\$7.85	\$0.00	\$0.00	\$26.16
2	55	\$20.14	\$7.85	\$3.66	\$0.00	\$31.65
3	60	\$21.97	\$7.85	\$3.99	\$0.00	\$33.81
4	65	\$23.80	\$7.85	\$4.32	\$0.00	\$35.97
5	70	\$25.63	\$7.85	\$14.11	\$0.00	\$47.59
6	75	\$27.47	\$7.85	\$14.44	\$0.00	\$49.76
7	80	\$29.30	\$7.85	\$14.77	\$0.00	\$51.92
8	90	\$32.96	\$7.85	\$15.44	\$0.00	\$56.25

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PAINTER (TRAFFIC MARKINGS)	06/01/2014	\$34.10	\$7.30	\$12.70	\$0.00	\$54.10
LABORERS - ZONE 1	12/01/2014	\$34.85	\$7.30	\$12.70	\$0.00	\$54.85
	06/01/2015	\$35.60	\$7.30	\$12.70	\$0.00	\$55.60
	12/01/2015	\$36.35	\$7.30	\$12.70	\$0.00	\$56.35
	06/01/2016	\$37.10	\$7.30	\$12.70	\$0.00	\$57.10
	12/01/2016	\$38.10	\$7.30	\$12.70	\$0.00	\$58.10

For Apprentice rates see "Apprentice- LABORER"

PAINTER / TAPER (BRUSH, NEW) *	07/01/2014	\$36.26	\$7.85	\$16.10	\$0.00	\$60.21
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2	01/01/2015	\$37.16	\$7.85	\$16.10	\$0.00	\$61.11
	07/01/2015	\$38.06	\$7.85	\$16.10	\$0.00	\$62.01
	01/01/2016	\$39.01	\$7.85	\$16.10	\$0.00	\$62.96
	07/01/2016	\$39.96	\$7.85	\$16.10	\$0.00	\$63.91
	01/01/2017	\$40.91	\$7.85	\$16.10	\$0.00	\$64.86

**Classification**

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

**Apprentice - PAINTER - Local 35 Zone 2 - BRUSH NEW**
**Effective Date - 07/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.13	\$7.85	\$0.00	\$0.00	\$25.98
2	55	\$19.94	\$7.85	\$3.66	\$0.00	\$31.45
3	60	\$21.76	\$7.85	\$3.99	\$0.00	\$33.60
4	65	\$23.57	\$7.85	\$4.32	\$0.00	\$35.74
5	70	\$25.38	\$7.85	\$14.11	\$0.00	\$47.34
6	75	\$27.20	\$7.85	\$14.44	\$0.00	\$49.49
7	80	\$29.01	\$7.85	\$14.77	\$0.00	\$51.63
8	90	\$32.63	\$7.85	\$15.44	\$0.00	\$55.92

**Effective Date - 01/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.58	\$7.85	\$0.00	\$0.00	\$26.43
2	55	\$20.44	\$7.85	\$3.66	\$0.00	\$31.95
3	60	\$22.30	\$7.85	\$3.99	\$0.00	\$34.14
4	65	\$24.15	\$7.85	\$4.32	\$0.00	\$36.32
5	70	\$26.01	\$7.85	\$14.11	\$0.00	\$47.97
6	75	\$27.87	\$7.85	\$14.44	\$0.00	\$50.16
7	80	\$29.73	\$7.85	\$14.77	\$0.00	\$52.35
8	90	\$33.44	\$7.85	\$15.44	\$0.00	\$56.73

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PAINTER / TAPER (BRUSH, REPAINT)	07/01/2014	\$34.32	\$7.85	\$16.10	\$0.00	\$58.27
PAINTERS LOCAL 35 - ZONE 2	01/01/2015	\$35.22	\$7.85	\$16.10	\$0.00	\$59.17
	07/01/2015	\$36.12	\$7.85	\$16.10	\$0.00	\$60.07
	01/01/2016	\$37.07	\$7.85	\$16.10	\$0.00	\$61.02
	07/01/2016	\$38.02	\$7.85	\$16.10	\$0.00	\$61.97
	01/01/2017	\$38.97	\$7.85	\$16.10	\$0.00	\$62.92

**Classification**

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

**Apprentice - PAINTER Local 35 Zone 2 - BRUSH REPAINT**
**Effective Date - 07/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.16	\$7.85	\$0.00	\$0.00	\$25.01
2	55	\$18.88	\$7.85	\$3.66	\$0.00	\$30.39
3	60	\$20.59	\$7.85	\$3.99	\$0.00	\$32.43
4	65	\$22.31	\$7.85	\$4.32	\$0.00	\$34.48
5	70	\$24.02	\$7.85	\$14.11	\$0.00	\$45.98
6	75	\$25.74	\$7.85	\$14.44	\$0.00	\$48.03
7	80	\$27.46	\$7.85	\$14.77	\$0.00	\$50.08
8	90	\$30.89	\$7.85	\$15.44	\$0.00	\$54.18

**Effective Date - 01/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.61	\$7.85	\$0.00	\$0.00	\$25.46
2	55	\$19.37	\$7.85	\$3.66	\$0.00	\$30.88
3	60	\$21.13	\$7.85	\$3.99	\$0.00	\$32.97
4	65	\$22.89	\$7.85	\$4.32	\$0.00	\$35.06
5	70	\$24.65	\$7.85	\$14.11	\$0.00	\$46.61
6	75	\$26.42	\$7.85	\$14.44	\$0.00	\$48.71
7	80	\$28.18	\$7.85	\$14.77	\$0.00	\$50.80
8	90	\$31.70	\$7.85	\$15.44	\$0.00	\$54.99

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PANEL & PICKUP TRUCKS DRIVER	08/01/2014	\$32.23	\$9.91	\$8.80	\$0.00	\$50.94
TEAMSTERS JOINT COUNCIL NO. 10 ZONE A	12/01/2014	\$32.23	\$9.91	\$9.33	\$0.00	\$51.47
	06/01/2015	\$32.58	\$9.91	\$9.33	\$0.00	\$51.82
	08/01/2015	\$32.58	\$10.41	\$9.33	\$0.00	\$52.32
	12/01/2015	\$32.58	\$10.41	\$10.08	\$0.00	\$53.07
	06/01/2016	\$33.08	\$10.41	\$10.08	\$0.00	\$53.57
	08/01/2016	\$33.08	\$10.91	\$10.08	\$0.00	\$54.07
	12/01/2016	\$33.08	\$10.91	\$10.89	\$0.00	\$54.88
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK)	08/01/2014	\$41.60	\$9.80	\$18.17	\$0.00	\$69.57
PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2015	\$43.10	\$9.80	\$18.17	\$0.00	\$71.07
PILE DRIVER	08/01/2014	\$41.60	\$9.80	\$18.17	\$0.00	\$69.57
PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2015	\$43.10	\$9.80	\$18.17	\$0.00	\$71.07

**Classification**

**Effective Date   Base Wage   Health   Pension   Supplemental Unemployment   Total Rate**

**Apprentice - PILE DRIVER - Local 56 Zone 1**

**Effective Date - 08/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.80	\$9.80	\$18.17	\$0.00	\$48.77
2	60	\$24.96	\$9.80	\$18.17	\$0.00	\$52.93
3	70	\$29.12	\$9.80	\$18.17	\$0.00	\$57.09
4	75	\$31.20	\$9.80	\$18.17	\$0.00	\$59.17
5	80	\$33.28	\$9.80	\$18.17	\$0.00	\$61.25
6	80	\$33.28	\$9.80	\$18.17	\$0.00	\$61.25
7	90	\$37.44	\$9.80	\$18.17	\$0.00	\$65.41
8	90	\$37.44	\$9.80	\$18.17	\$0.00	\$65.41

**Effective Date - 08/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.55	\$9.80	\$18.17	\$0.00	\$49.52
2	60	\$25.86	\$9.80	\$18.17	\$0.00	\$53.83
3	70	\$30.17	\$9.80	\$18.17	\$0.00	\$58.14
4	75	\$32.33	\$9.80	\$18.17	\$0.00	\$60.30
5	80	\$34.48	\$9.80	\$18.17	\$0.00	\$62.45
6	80	\$34.48	\$9.80	\$18.17	\$0.00	\$62.45
7	90	\$38.79	\$9.80	\$18.17	\$0.00	\$66.76
8	90	\$38.79	\$9.80	\$18.17	\$0.00	\$66.76

**Notes:**

**Apprentice to Journeyworker Ratio:1:3**

**PIPEFITTER & STEAMFITTER**

*PIPEFITTERS LOCAL 537*

03/01/2014	\$48.19	\$9.20	\$16.14	\$0.00	\$73.53
09/01/2014	\$49.19	\$9.20	\$16.14	\$0.00	\$74.53
03/01/2015	\$50.19	\$9.20	\$16.14	\$0.00	\$75.53
09/01/2015	\$51.19	\$9.20	\$16.14	\$0.00	\$76.53
03/01/2016	\$52.19	\$9.20	\$16.14	\$0.00	\$77.53
09/01/2016	\$53.19	\$9.20	\$16.14	\$0.00	\$78.53
03/01/2017	\$54.19	\$9.20	\$16.14	\$0.00	\$79.53

**Classification**
**Effective Date**
**Base Wage**
**Health**
**Pension**
**Supplemental  
Unemployment**
**Total Rate**
**Apprentice - PIPEFITTER - Local 537**
**Effective Date - 03/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$19.28	\$9.20	\$7.00	\$0.00	\$35.48
2	45	\$21.69	\$9.20	\$16.14	\$0.00	\$47.03
3	60	\$28.91	\$9.20	\$16.14	\$0.00	\$54.25
4	70	\$33.73	\$9.20	\$16.14	\$0.00	\$59.07
5	80	\$38.55	\$9.20	\$16.14	\$0.00	\$63.89

**Effective Date - 09/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$19.68	\$9.20	\$7.00	\$0.00	\$35.88
2	45	\$22.14	\$9.20	\$16.14	\$0.00	\$47.48
3	60	\$29.51	\$9.20	\$16.14	\$0.00	\$54.85
4	70	\$34.43	\$9.20	\$16.14	\$0.00	\$59.77
5	80	\$39.35	\$9.20	\$16.14	\$0.00	\$64.69

**Notes:**

\*\* 1:3; 3:15; 1:10 thereafter / Steps are 1 yr.

Refrig/AC Mechanic \*\*1:1;1:2;2:4;3:6;4:8;5:10;6:12;7:14;8:17;9:20;10:23(Max)

**Apprentice to Journeyworker Ratio:\*\***

PIPELAYER	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
LABORERS - ZONE 1	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
PLUMBERS & GASFITTERS	03/01/2014	\$49.41	\$9.82	\$14.29	\$0.00	\$73.52
PLUMBERS & GASFITTERS LOCAL 12	09/01/2014	\$50.41	\$9.82	\$14.29	\$0.00	\$74.52
	03/01/2015	\$51.41	\$9.82	\$14.29	\$0.00	\$75.52
	09/01/2015	\$52.41	\$9.82	\$14.29	\$0.00	\$76.52
	03/01/2016	\$53.56	\$9.82	\$14.29	\$0.00	\$77.67
	09/01/2016	\$54.61	\$9.82	\$14.29	\$0.00	\$78.72
	03/01/2017	\$55.61	\$9.82	\$14.29	\$0.00	\$79.72

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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**Apprentice - PLUMBER/GASFITTER - Local 12**

**Effective Date - 03/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$17.29	\$9.82	\$5.33	\$0.00	\$32.44
2	40	\$19.76	\$9.82	\$6.02	\$0.00	\$35.60
3	55	\$27.18	\$9.82	\$8.08	\$0.00	\$45.08
4	65	\$32.12	\$9.82	\$9.47	\$0.00	\$51.41
5	75	\$37.06	\$9.82	\$10.85	\$0.00	\$57.73

**Effective Date - 09/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$17.64	\$9.82	\$5.33	\$0.00	\$32.79
2	40	\$20.16	\$9.82	\$6.02	\$0.00	\$36.00
3	55	\$27.73	\$9.82	\$8.08	\$0.00	\$45.63
4	65	\$32.77	\$9.82	\$9.47	\$0.00	\$52.06
5	75	\$37.81	\$9.82	\$10.85	\$0.00	\$58.48

**Notes:**

\*\* 1:2; 2:6; 3:10; 4:14; 5:19/Steps are 1 yr  
Step4 with lic\$54.58 Step5 with lic\$60.90

**Apprentice to Journeyworker Ratio:\*\***

PNEUMATIC CONTROLS (TEMP.)	03/01/2014	\$48.19	\$9.20	\$16.14	\$0.00	\$73.53
PIPEFITTERS LOCAL 537	09/01/2014	\$49.19	\$9.20	\$16.14	\$0.00	\$74.53
	03/01/2015	\$50.19	\$9.20	\$16.14	\$0.00	\$75.53
	09/01/2015	\$51.19	\$9.20	\$16.14	\$0.00	\$76.53
	03/01/2016	\$52.19	\$9.20	\$16.14	\$0.00	\$77.53
	09/01/2016	\$53.19	\$9.20	\$16.14	\$0.00	\$78.53
	03/01/2017	\$54.19	\$9.20	\$16.14	\$0.00	\$79.53
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
PNEUMATIC DRILL/TOOL OPERATOR	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
LABORERS - ZONE 1	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
POWDERMAN & BLASTER	06/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
LABORERS - ZONE 1	12/01/2014	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	06/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	12/01/2015	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	06/01/2016	\$38.10	\$7.30	\$12.70	\$0.00	\$58.10
	12/01/2016	\$39.10	\$7.30	\$12.70	\$0.00	\$59.10
For apprentice rates see "Apprentice- LABORER"						
POWER SHOVEL/DERRICK/TRENCHING MACHINE	12/01/2013	\$40.49	\$10.00	\$14.18	\$0.00	\$64.67
OPERATING ENGINEERS LOCAL 4						
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PUMP OPERATOR (CONCRETE) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.49	\$10.00	\$14.18	\$0.00	\$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$28.11	\$10.00	\$14.18	\$0.00	\$52.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY MIX CONCRETE DRIVERS after 4/30/10 (Drivers Hired After 4/30/2010) <i>TEAMSTERS LOCAL 25c</i>	07/01/2014	\$27.73	\$7.73	\$8.65	\$0.00	\$44.11
	05/01/2015	\$27.88	\$7.73	\$8.92	\$0.00	\$44.53
	07/01/2015	\$27.88	\$7.98	\$8.92	\$0.00	\$44.78
	05/01/2016	\$28.03	\$7.98	\$9.31	\$0.00	\$45.32
	07/01/2016	\$28.03	\$8.23	\$9.31	\$0.00	\$45.57
	05/01/2017	\$28.18	\$8.23	\$9.72	\$0.00	\$46.13
	07/01/2017	\$28.18	\$8.48	\$9.72	\$0.00	\$46.38
READY-MIX CONCRETE DRIVER <i>TEAMSTERS LOCAL 25c</i>	07/01/2014	\$29.03	\$7.73	\$8.65	\$0.00	\$45.41
	05/01/2015	\$29.18	\$7.73	\$8.92	\$0.00	\$45.83
	07/01/2015	\$29.18	\$7.98	\$8.92	\$0.00	\$46.08
	05/01/2016	\$29.33	\$7.98	\$9.31	\$0.00	\$46.62
	07/01/2016	\$29.33	\$8.23	\$9.31	\$0.00	\$46.87
	05/01/2017	\$29.48	\$8.23	\$9.72	\$0.00	\$47.43
	07/01/2017	\$29.48	\$8.48	\$9.72	\$0.00	\$47.68
RECLAIMERS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
RESIDENTIAL WOOD FRAME (All Other Work) <i>CARPENTERS -ZONE 2 (Residential Wood)</i>	04/01/2011	\$24.24	\$8.67	\$15.51	\$0.00	\$48.42
RESIDENTIAL WOOD FRAME CARPENTER ** ** The Residential Wood Frame Carpenter classification applies only to the construction of new, wood frame residences that do not exceed four stories including the basement. <i>CARPENTERS -ZONE 2 (Residential Wood)</i> As of 9/1/09 Carpentry work on wood-frame residential WEATHERIZATION projects shall be paid the RESIDENTIAL WOOD FRAME CARPENTER rate.	05/01/2011	\$24.24	\$6.34	\$6.23	\$0.00	\$36.81

#### Apprentice - CARPENTER (Residential Wood Frame) - Zone 2

Effective Date - 05/01/2011

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$14.54	\$6.34	\$0.00	\$0.00	\$20.88
2	60	\$14.54	\$6.34	\$6.23	\$0.00	\$27.11
3	65	\$15.76	\$6.34	\$6.23	\$0.00	\$28.33
4	70	\$16.97	\$6.34	\$6.23	\$0.00	\$29.54
5	75	\$18.18	\$6.34	\$6.23	\$0.00	\$30.75
6	80	\$19.39	\$6.34	\$6.23	\$0.00	\$31.96
7	85	\$20.60	\$6.34	\$6.23	\$0.00	\$33.17
8	90	\$21.82	\$6.34	\$6.23	\$0.00	\$34.39

Notes:

Apprentice to Journeyworker Ratio:1:5

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
RIDE-ON MOTORIZED BUGGY OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35

For apprentice rates see "Apprentice- LABORER"

ROLLER/SPREADER/MULCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

ROOFER (Inc.Roofing Waterproofing &Roofing Damproofg) <i>ROOFERS LOCAL 33</i>	08/01/2014	\$39.21	\$10.50	\$11.60	\$0.00	\$61.31
	02/01/2015	\$40.11	\$10.50	\$11.60	\$0.00	\$62.21
	08/01/2015	\$41.01	\$10.50	\$11.60	\$0.00	\$63.11
	02/01/2016	\$41.91	\$10.50	\$11.60	\$0.00	\$64.01

#### Apprentice - ROOFER - Local 33

Effective Date - 08/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.61	\$10.50	\$3.38	\$0.00	\$33.49
2	60	\$23.53	\$10.50	\$11.60	\$0.00	\$45.63
3	65	\$25.49	\$10.50	\$11.60	\$0.00	\$47.59
4	75	\$29.41	\$10.50	\$11.60	\$0.00	\$51.51
5	85	\$33.33	\$10.50	\$11.60	\$0.00	\$55.43

Effective Date - 02/01/2015

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.06	\$10.50	\$3.38	\$0.00	\$33.94
2	60	\$24.07	\$10.50	\$11.60	\$0.00	\$46.17
3	65	\$26.07	\$10.50	\$11.60	\$0.00	\$48.17
4	75	\$30.08	\$10.50	\$11.60	\$0.00	\$52.18
5	85	\$34.09	\$10.50	\$11.60	\$0.00	\$56.19

Notes: \*\* 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1  
Step 1 is 2000 hrs.; Steps 2-5 are 1000 hrs.

Apprentice to Journeyworker Ratio:\*\*

ROOFER SLATE / TILE / PRECAST CONCRETE <i>ROOFERS LOCAL 33</i>	08/01/2014	\$39.46	\$10.50	\$11.60	\$0.00	\$61.56
	02/01/2015	\$40.36	\$10.50	\$11.60	\$0.00	\$62.46
	08/01/2015	\$41.26	\$10.50	\$11.60	\$0.00	\$63.36
	02/01/2016	\$42.16	\$10.50	\$11.60	\$0.00	\$64.26

For apprentice rates see "Apprentice- ROOFER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
SHEETMETAL WORKER	08/01/2014	\$42.79	\$9.82	\$20.54	\$2.19	\$75.34
<i>SHEETMETAL WORKERS LOCAL 17 - A</i>	02/01/2015	\$43.69	\$9.82	\$20.54	\$2.19	\$76.24
	08/01/2015	\$44.69	\$9.82	\$20.54	\$2.19	\$77.24
	02/01/2016	\$45.69	\$9.82	\$20.54	\$2.19	\$78.24
	08/01/2016	\$46.84	\$9.82	\$20.54	\$2.19	\$79.39
	02/01/2017	\$47.94	\$9.82	\$20.54	\$2.19	\$80.49
	08/01/2017	\$49.04	\$9.82	\$20.54	\$2.19	\$81.59
	02/01/2018	\$50.19	\$9.82	\$20.54	\$2.19	\$82.74

**Apprentice - SHEET METAL WORKER - Local 17-A**

**Effective Date - 08/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.12	\$9.82	\$4.58	\$0.00	\$31.52
2	40	\$17.12	\$9.82	\$4.58	\$0.00	\$31.52
3	45	\$19.26	\$9.82	\$9.09	\$1.15	\$39.32
4	45	\$19.26	\$9.82	\$9.09	\$1.15	\$39.32
5	50	\$21.40	\$9.82	\$9.91	\$1.23	\$42.36
6	50	\$21.40	\$9.82	\$10.16	\$1.24	\$42.62
7	60	\$25.67	\$9.82	\$11.55	\$1.41	\$48.45
8	65	\$27.81	\$9.82	\$12.38	\$1.50	\$51.51
9	75	\$32.09	\$9.82	\$14.02	\$1.68	\$57.61
10	85	\$36.37	\$9.82	\$15.16	\$1.84	\$63.19

**Effective Date - 02/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.48	\$9.82	\$4.58	\$0.00	\$31.88
2	40	\$17.48	\$9.82	\$4.58	\$0.00	\$31.88
3	45	\$19.66	\$9.82	\$9.09	\$1.16	\$39.73
4	45	\$19.66	\$9.82	\$9.09	\$1.16	\$39.73
5	50	\$21.85	\$9.82	\$9.91	\$1.25	\$42.83
6	50	\$21.85	\$9.82	\$10.16	\$1.25	\$43.08
7	60	\$26.21	\$9.82	\$11.55	\$1.43	\$49.01
8	65	\$28.40	\$9.82	\$12.38	\$1.52	\$52.12
9	75	\$32.77	\$9.82	\$14.02	\$1.70	\$58.31
10	85	\$37.14	\$9.82	\$15.16	\$1.86	\$63.98

**Notes:**

Steps are 6 mos.

**Apprentice to Journeyworker Ratio:1:4**

SIGN ERECTOR	06/01/2013	\$25.81	\$7.07	\$7.05	\$0.00	\$39.93
<i>PAINTERS LOCAL 35 - ZONE 2</i>						

**Classification**
**Effective Date**
**Base Wage**
**Health**
**Pension**
**Supplemental  
Unemployment**
**Total Rate**
**Apprentice - SIGN ERECTOR - Local 35 Zone 2**
**Effective Date - 06/01/2013**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$12.91	\$7.07	\$0.00	\$0.00	\$19.98
2	55	\$14.20	\$7.07	\$2.45	\$0.00	\$23.72
3	60	\$15.49	\$7.07	\$2.45	\$0.00	\$25.01
4	65	\$16.78	\$7.07	\$2.45	\$0.00	\$26.30
5	70	\$18.07	\$7.07	\$7.05	\$0.00	\$32.19
6	75	\$19.36	\$7.07	\$7.05	\$0.00	\$33.48
7	80	\$20.65	\$7.07	\$7.05	\$0.00	\$34.77
8	85	\$21.94	\$7.07	\$7.05	\$0.00	\$36.06
9	90	\$23.23	\$7.07	\$7.05	\$0.00	\$37.35

**Notes:**

Steps are 4 mos.

**Apprentice to Journeyworker Ratio:1:1**
**SPECIALIZED EARTH MOVING EQUIP < 35 TONS**
*TEAMSTERS JOINT COUNCIL NO. 10 ZONE A*

08/01/2014	\$32.69	\$9.91	\$8.80	\$0.00	\$51.40
12/01/2014	\$32.69	\$9.91	\$9.33	\$0.00	\$51.93
06/01/2015	\$33.04	\$9.91	\$9.33	\$0.00	\$52.28
08/01/2015	\$33.04	\$10.41	\$9.33	\$0.00	\$52.78
12/01/2015	\$33.04	\$10.41	\$10.08	\$0.00	\$53.53
06/01/2016	\$33.54	\$10.41	\$10.08	\$0.00	\$54.03
08/01/2016	\$33.54	\$10.91	\$10.08	\$0.00	\$54.53
12/01/2016	\$33.54	\$10.91	\$10.89	\$0.00	\$55.34

**SPECIALIZED EARTH MOVING EQUIP > 35 TONS**
*TEAMSTERS JOINT COUNCIL NO. 10 ZONE A*

08/01/2014	\$32.98	\$9.91	\$8.80	\$0.00	\$51.69
12/01/2014	\$32.98	\$9.91	\$9.33	\$0.00	\$52.22
06/01/2015	\$33.33	\$9.91	\$9.33	\$0.00	\$52.57
08/01/2015	\$33.33	\$10.41	\$9.33	\$0.00	\$53.07
12/01/2015	\$33.33	\$10.41	\$10.08	\$0.00	\$53.82
06/01/2016	\$33.83	\$10.41	\$10.08	\$0.00	\$54.32
08/01/2016	\$33.83	\$10.91	\$10.08	\$0.00	\$54.82
12/01/2016	\$33.83	\$10.91	\$10.89	\$0.00	\$55.63

**SPRINKLER FITTER**
*SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1*

03/01/2014	\$53.58	\$8.42	\$13.60	\$0.00	\$75.60
10/01/2014	\$54.73	\$8.42	\$13.60	\$0.00	\$76.75
01/01/2015	\$54.73	\$8.42	\$13.75	\$0.00	\$76.90
03/01/2015	\$55.73	\$8.42	\$13.75	\$0.00	\$77.90
10/01/2015	\$56.88	\$8.42	\$13.75	\$0.00	\$79.05
01/01/2016	\$56.88	\$8.67	\$13.90	\$0.00	\$79.45
03/01/2016	\$57.88	\$8.67	\$13.90	\$0.00	\$80.45
10/01/2016	\$59.03	\$8.67	\$13.90	\$0.00	\$81.60
03/01/2017	\$60.03	\$8.67	\$13.90	\$0.00	\$82.60

**Apprentice - SPRINKLER FITTER - Local 550 (Section A) Zone 1****Effective Date -** 03/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$18.75	\$8.42	\$8.25	\$0.00	\$35.42
2	40	\$21.43	\$8.42	\$8.25	\$0.00	\$38.10
3	45	\$24.11	\$8.42	\$8.25	\$0.00	\$40.78
4	50	\$26.79	\$8.42	\$8.25	\$0.00	\$43.46
5	55	\$29.47	\$8.42	\$8.25	\$0.00	\$46.14
6	60	\$32.15	\$8.42	\$8.25	\$0.00	\$48.82
7	65	\$34.83	\$8.42	\$8.25	\$0.00	\$51.50
8	70	\$37.51	\$8.42	\$8.25	\$0.00	\$54.18
9	75	\$40.19	\$8.42	\$8.25	\$0.00	\$56.86
10	80	\$42.86	\$8.42	\$8.25	\$0.00	\$59.53

**Effective Date -** 10/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$19.16	\$8.42	\$8.25	\$0.00	\$35.83
2	40	\$21.89	\$8.42	\$8.25	\$0.00	\$38.56
3	45	\$24.63	\$8.42	\$8.25	\$0.00	\$41.30
4	50	\$27.37	\$8.42	\$8.25	\$0.00	\$44.04
5	55	\$30.10	\$8.42	\$8.25	\$0.00	\$46.77
6	60	\$32.84	\$8.42	\$8.25	\$0.00	\$49.51
7	65	\$35.57	\$8.42	\$8.25	\$0.00	\$52.24
8	70	\$38.31	\$8.42	\$8.25	\$0.00	\$54.98
9	75	\$41.05	\$8.42	\$8.25	\$0.00	\$57.72
10	80	\$43.78	\$8.42	\$8.25	\$0.00	\$60.45

Notes: Apprentice entered prior 9/30/10:  
40/45/50/55/60/65/70/75/80/85  
Steps are 850 hours

**Apprentice to Journeyworker Ratio:1:3**

STEAM BOILER OPERATOR OPERATING ENGINEERS LOCAL 4	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN OPERATING ENGINEERS LOCAL 4	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TELECOMMUNICATION TECHNICIAN ELECTRICIANS LOCAL 103	03/01/2014	\$33.44	\$13.00	\$13.03	\$0.00	\$59.47
	09/01/2014	\$33.84	\$13.00	\$13.05	\$0.00	\$59.89
	03/01/2015	\$34.38	\$13.00	\$13.06	\$0.00	\$60.44
	09/01/2015	\$35.10	\$13.00	\$13.08	\$0.00	\$61.18
	03/01/2016	\$35.81	\$13.00	\$13.10	\$0.00	\$61.91

**Classification**

**Effective Date   Base Wage   Health   Pension   Supplemental Unemployment   Total Rate**

**Apprentice - TELECOMMUNICATION TECHNICIAN - Local 103**

**Effective Date - 03/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$13.38	\$13.00	\$0.40	\$0.00	\$26.78
2	40	\$13.38	\$13.00	\$0.40	\$0.00	\$26.78
3	45	\$15.05	\$13.00	\$10.29	\$0.00	\$38.34
4	45	\$15.05	\$13.00	\$10.29	\$0.00	\$38.34
5	50	\$16.72	\$13.00	\$10.54	\$0.00	\$40.26
6	55	\$18.39	\$13.00	\$10.79	\$0.00	\$42.18
7	60	\$20.06	\$13.00	\$11.04	\$0.00	\$44.10
8	65	\$21.74	\$13.00	\$11.29	\$0.00	\$46.03
9	70	\$23.41	\$13.00	\$11.54	\$0.00	\$47.95
10	75	\$25.08	\$13.00	\$11.79	\$0.00	\$49.87

**Effective Date - 09/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$13.54	\$13.00	\$0.41	\$0.00	\$26.95
2	40	\$13.54	\$13.00	\$0.41	\$0.00	\$26.95
3	45	\$15.23	\$13.00	\$10.30	\$0.00	\$38.53
4	45	\$15.23	\$13.00	\$10.30	\$0.00	\$38.53
5	50	\$16.92	\$13.00	\$10.55	\$0.00	\$40.47
6	55	\$18.61	\$13.00	\$10.80	\$0.00	\$42.41
7	60	\$20.30	\$13.00	\$11.05	\$0.00	\$44.35
8	65	\$22.00	\$13.00	\$11.30	\$0.00	\$46.30
9	70	\$23.69	\$13.00	\$11.55	\$0.00	\$48.24
10	75	\$25.38	\$13.00	\$11.80	\$0.00	\$50.18

**Notes:**

**Apprentice to Journeyworker Ratio:1:1**

TERRAZZO FINISHERS	08/01/2014	\$47.90	\$10.18	\$18.22	\$0.00	\$76.30
BRICKLAYERS LOCAL 3 - MARBLE & TILE	02/01/2015	\$48.46	\$10.18	\$18.22	\$0.00	\$76.86
	08/01/2015	\$49.36	\$10.18	\$18.29	\$0.00	\$77.83
	02/01/2016	\$49.93	\$10.18	\$18.29	\$0.00	\$78.40
	08/01/2016	\$50.83	\$10.18	\$18.37	\$0.00	\$79.38
	02/01/2017	\$51.40	\$10.18	\$18.37	\$0.00	\$79.95

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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**Apprentice - TERRAZZO FINISHER - Local 3 Marble & Tile**

**Effective Date -** 08/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.95	\$10.18	\$18.22	\$0.00	\$52.35
2	60	\$28.74	\$10.18	\$18.22	\$0.00	\$57.14
3	70	\$33.53	\$10.18	\$18.22	\$0.00	\$61.93
4	80	\$38.32	\$10.18	\$18.22	\$0.00	\$66.72
5	90	\$43.11	\$10.18	\$18.22	\$0.00	\$71.51

**Effective Date -** 02/01/2015

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.23	\$10.18	\$18.22	\$0.00	\$52.63
2	60	\$29.08	\$10.18	\$18.22	\$0.00	\$57.48
3	70	\$33.92	\$10.18	\$18.22	\$0.00	\$62.32
4	80	\$38.77	\$10.18	\$18.22	\$0.00	\$67.17
5	90	\$43.61	\$10.18	\$18.22	\$0.00	\$72.01

**Notes:**

**Apprentice to Journeyworker Ratio:1:3**

TEST BORING DRILLER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2014	\$35.45	\$7.30	\$12.90	\$0.00	\$55.65
	12/01/2014	\$36.20	\$7.30	\$12.90	\$0.00	\$56.40
	06/01/2015	\$36.95	\$7.30	\$12.90	\$0.00	\$57.15
	12/01/2015	\$37.70	\$7.30	\$12.90	\$0.00	\$57.90
	06/01/2016	\$38.45	\$7.30	\$12.90	\$0.00	\$58.65
	12/01/2016	\$39.45	\$7.30	\$12.90	\$0.00	\$59.65
For apprentice rates see "Apprentice- LABORER"						
TEST BORING DRILLER HELPER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2014	\$34.17	\$7.30	\$12.90	\$0.00	\$54.37
	12/01/2014	\$34.92	\$7.30	\$12.90	\$0.00	\$55.12
	06/01/2015	\$35.67	\$7.30	\$12.90	\$0.00	\$55.87
	12/01/2015	\$36.42	\$7.30	\$12.90	\$0.00	\$56.62
	06/01/2016	\$37.17	\$7.30	\$12.90	\$0.00	\$57.37
	12/01/2016	\$38.17	\$7.30	\$12.90	\$0.00	\$58.37
For apprentice rates see "Apprentice- LABORER"						
TEST BORING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2014	\$34.05	\$7.30	\$12.90	\$0.00	\$54.25
	12/01/2014	\$34.80	\$7.30	\$12.90	\$0.00	\$55.00
	06/01/2015	\$35.55	\$7.30	\$12.90	\$0.00	\$55.75
	12/01/2015	\$36.30	\$7.30	\$12.90	\$0.00	\$56.50
	06/01/2016	\$37.05	\$7.30	\$12.90	\$0.00	\$57.25
	12/01/2016	\$38.05	\$7.30	\$12.90	\$0.00	\$58.25
For apprentice rates see "Apprentice- LABORER"						
TRACTORS/PORTABLE STEAM GENERATORS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TRAILERS FOR EARTH MOVING EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	08/01/2014	\$33.27	\$9.91	\$8.80	\$0.00	\$51.98
	12/01/2014	\$33.27	\$9.91	\$9.33	\$0.00	\$52.51
	06/01/2015	\$33.62	\$9.91	\$9.33	\$0.00	\$52.86
	08/01/2015	\$33.62	\$10.41	\$9.33	\$0.00	\$53.36
	12/01/2015	\$33.62	\$10.41	\$10.08	\$0.00	\$54.11
	06/01/2016	\$34.12	\$10.41	\$10.08	\$0.00	\$54.61
	08/01/2016	\$34.12	\$10.91	\$10.08	\$0.00	\$55.11
	12/01/2016	\$34.12	\$10.91	\$10.89	\$0.00	\$55.92
TUNNEL WORK - COMPRESSED AIR <i>LABORERS (COMPRESSED AIR)</i>	06/01/2014	\$46.33	\$7.30	\$13.30	\$0.00	\$66.93
	12/01/2014	\$47.08	\$7.30	\$13.30	\$0.00	\$67.68
	06/01/2015	\$47.83	\$7.30	\$13.30	\$0.00	\$68.43
	12/01/2015	\$48.58	\$7.30	\$13.30	\$0.00	\$69.18
	06/01/2016	\$49.33	\$7.30	\$13.30	\$0.00	\$69.93
	12/01/2016	\$50.33	\$7.30	\$13.30	\$0.00	\$70.93
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) <i>LABORERS (COMPRESSED AIR)</i>	06/01/2014	\$48.33	\$7.30	\$13.30	\$0.00	\$68.93
	12/01/2014	\$49.08	\$7.30	\$13.30	\$0.00	\$69.68
	06/01/2015	\$49.83	\$7.30	\$13.30	\$0.00	\$70.43
	12/01/2015	\$50.58	\$7.30	\$13.30	\$0.00	\$71.18
	06/01/2016	\$51.33	\$7.30	\$13.30	\$0.00	\$71.93
	12/01/2016	\$52.33	\$7.30	\$13.30	\$0.00	\$72.93
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR <i>LABORERS (FREE AIR TUNNEL)</i>	06/01/2014	\$38.40	\$7.30	\$13.30	\$0.00	\$59.00
	12/01/2014	\$39.15	\$7.30	\$13.30	\$0.00	\$59.75
	06/01/2015	\$39.90	\$7.30	\$13.30	\$0.00	\$60.50
	12/01/2015	\$40.65	\$7.30	\$13.30	\$0.00	\$61.25
	06/01/2016	\$41.40	\$7.30	\$13.30	\$0.00	\$62.00
	12/01/2016	\$42.40	\$7.30	\$13.30	\$0.00	\$63.00
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR (HAZ. WASTE) <i>LABORERS (FREE AIR TUNNEL)</i>	06/01/2014	\$40.40	\$7.30	\$13.30	\$0.00	\$61.00
	12/01/2014	\$41.15	\$7.30	\$13.30	\$0.00	\$61.75
	06/01/2015	\$41.90	\$7.30	\$13.30	\$0.00	\$62.50
	12/01/2015	\$42.65	\$7.30	\$13.30	\$0.00	\$63.25
	06/01/2016	\$43.40	\$7.30	\$13.30	\$0.00	\$64.00
	12/01/2016	\$44.40	\$7.30	\$13.30	\$0.00	\$65.00
For apprentice rates see "Apprentice- LABORER"						
VAC-HAUL <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	08/01/2014	\$32.69	\$9.91	\$8.80	\$0.00	\$51.40
	12/01/2014	\$32.69	\$9.91	\$9.33	\$0.00	\$51.93
	06/01/2015	\$33.04	\$9.91	\$9.33	\$0.00	\$52.28
	08/01/2015	\$33.04	\$10.41	\$9.33	\$0.00	\$52.78
	12/01/2015	\$33.04	\$10.41	\$10.08	\$0.00	\$53.53
	06/01/2016	\$33.54	\$10.41	\$10.08	\$0.00	\$54.03
	08/01/2016	\$33.54	\$10.91	\$10.08	\$0.00	\$54.53
	12/01/2016	\$33.54	\$10.91	\$10.89	\$0.00	\$55.34



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
WAGON DRILL OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
WASTE WATER PUMP OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.49	\$10.00	\$14.18	\$0.00	\$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
WATER METER INSTALLER <i>PLUMBERS &amp; GASFITTERS LOCAL 12</i>	03/01/2014	\$49.41	\$9.82	\$14.29	\$0.00	\$73.52
	09/01/2014	\$50.41	\$9.82	\$14.29	\$0.00	\$74.52
	03/01/2015	\$51.41	\$9.82	\$14.29	\$0.00	\$75.52
	09/01/2015	\$52.41	\$9.82	\$14.29	\$0.00	\$76.52
	03/01/2016	\$53.56	\$9.82	\$14.29	\$0.00	\$77.67
	09/01/2016	\$54.61	\$9.82	\$14.29	\$0.00	\$78.72
	03/01/2017	\$55.61	\$9.82	\$14.29	\$0.00	\$79.72
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"						
<b>Outside Electrical - East</b>						
CABLE TECHNICIAN (Power Zone) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$25.66	\$8.70	\$4.48	\$0.00	\$38.84
For apprentice rates see "Apprentice- LINEMAN"						
CABLEMAN (Underground Ducts & Cables) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$36.55	\$8.70	\$6.58	\$0.00	\$51.83
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN CDL <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$29.94	\$8.70	\$6.05	\$0.00	\$44.69
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN -Inexperienced (<2000 Hrs) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$23.52	\$8.70	\$5.24	\$0.00	\$37.46
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class A CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$36.35	\$8.70	\$9.43	\$0.00	\$54.48
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class B CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$32.08	\$8.70	\$6.59	\$0.00	\$47.37
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$23.52	\$8.70	\$3.72	\$0.00	\$35.94
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN -Inexperienced (<2000 Hrs.) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$19.25	\$8.70	\$2.85	\$0.00	\$30.80
For apprentice rates see "Apprentice- LINEMAN"						
JOURNEYMAN LINEMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$42.77	\$8.70	\$11.78	\$0.00	\$63.25

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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**Apprentice - LINEMAN (Outside Electrical) - East Local 104**

**Effective Date - 09/01/2013**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$25.66	\$8.70	\$4.24	\$0.00	\$38.60
2	65	\$27.80	\$8.70	\$4.71	\$0.00	\$41.21
3	70	\$29.94	\$8.70	\$5.43	\$0.00	\$44.07
4	75	\$32.08	\$8.70	\$6.16	\$0.00	\$46.94
5	80	\$34.22	\$8.70	\$6.88	\$0.00	\$49.80
6	85	\$36.35	\$8.70	\$7.62	\$0.00	\$52.67
7	90	\$38.49	\$8.70	\$8.83	\$0.00	\$56.02

**Notes:**

**Apprentice to Journeyworker Ratio:1:2**

TELEDATA CABLE SPLICER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	07/16/2012	\$26.33	\$4.18	\$2.79	\$0.00	\$33.30
TELEDATA LINEMAN/EQUIPMENT OPERATOR <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	07/16/2012	\$24.78	\$4.18	\$2.74	\$0.00	\$31.70
TELEDATA WIREMAN/INSTALLER/TECHNICIAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	07/16/2012	\$24.78	\$4.18	\$2.74	\$0.00	\$31.70
TREE TRIMMER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/29/2012	\$17.18	\$3.37	\$0.00	\$0.00	\$20.55
This classification applies only to tree work done: (a) for a utility company, R.E.A. cooperative, or railroad or coal mining company, and (b) for the purpose of operating, maintaining, or repairing the utility company's equipment, and (c) by a person who is using hand or mechanical cutting methods and is not on the ground. This classification does not apply to wholesale tree removal.						
TREE TRIMMER GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/29/2012	\$15.15	\$3.37	\$0.00	\$0.00	\$18.52
This classification applies only to tree work done: (a) for a utility company, R.E.A. cooperative, or railroad or coal mining company, and (b) for the purpose of operating, maintaining, or repairing the utility company's equipment, and (c) by a person who is using hand or mechanical cutting methods and is on the ground. This classification does not apply to wholesale tree removal.						

**Additional Apprentice Information:**

Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the pre-determined hourly wage rate established by the Commissioner under the provisions of the M.G.L. c. 149, ss. 26-27D. Apprentice ratios are established by the Division of Apprenticeship Training pursuant to M.G.L. c. 23, ss. 11E-11L.

All apprentices must be registered with the Division of Apprenticeship Training in accordance with M.G.L. c. 23, ss. 11E-11L.

All steps are six months (1000 hours) unless otherwise specified.

- \* Ratios are expressed in allowable number of apprentices to journeymen or fraction thereof.
- \*\* Multiple ratios are listed in the comment field.
- \*\*\* APP to JM; 1:1, 2:2, 2:3, 3:4, 4:4, 4:5, 4:6, 5:7, 6:7, 6:8, 6:9, 7:10, 8:10, 8:11, 8:12, 9:13, 10:13, 10:14, etc.
- \*\*\*\* APP to JM; 1:1, 1:2, 2:3, 2:4, 3:5, 4:6, 4:7, 5:8, 6:9, 6:10, 7:11, 8:12, 8:13, 9:14, 10:15, 10:16, etc.